



**Performance Management
Accountability Indicators**

May 26, 2006

Performance Management Accountability Indicators

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Foreword

This document and its companion “Performance Management Accountability Indicators: Data Tables” are reference tools for regional health authorities and Saskatchewan Health for indicator reporting and interpretation. Future versions will reflect the ongoing evolution of the accountability and performance management processes.

Acknowledgements

We would like to thank the following for their contributions to the documents “Performance Management Accountability Indicators” and “Performance Management Accountability Indicators: Data Tables”, and the indicator development and review process:

- The Strategic Committee on Indicator Development (SCID) for its overall direction during its existence, as well as its comments and feedback;
- The Technical Committee on Indicator Development (TCID) and others at Saskatchewan Health for their hard work in developing, reviewing and revising indicator templates and data tables (the content of these documents);
- Individuals in Regional Health Authorities who reviewed indicator templates and provided valuable feedback; and,
- Regional Policy Branch, Saskatchewan Health for coordinating the indicator development and review process, and providing the resources to create these documents.

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Performance Management Accountability Indicators

Version Release History

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Date	Description
February 16, 2005 (DRAFT)	Distributed to internal Technical Committee on Indicator Development (TCID) (all indicators included).
February 18, 2005 (DRAFT)	Distributed to external Strategic Committee on Indicator Development (SCID) and TCID (all indicators included).
March 16, 2005 (DRAFT)	Document abridged to include detailed templates for 2004/2005 indicators only. Distributed internally for comment and informal branch sign-off.
March 31, 2005	Distributed to RHAs with the documents "Performance Management Accountability Indicators: Data Tables (preliminary)" (March 31, 2005 version) and "Regional Health Authority 2004-2005 Annual Report Guidelines".
May 21, 2005	Revisions made to the following templates: <ul style="list-style-type: none"> • "Number of wage-driven premium hours (overtime and other premiums) per full time equivalent (FTE) by affiliation" • "Alcohol and drug outpatient treatment completion rate per 100 admissions" • "Mental health inpatient readmission rate per 100 mental health inpatients" • "Percentage of population (age 18 to 64 years) who are overweight or obese". Distributed to RHAs with the document "Performance Management Accountability Indicators: Data Tables" (May 21, 2005 version).

2005/2006	
Date	Description
April 21, 2006 (DRAFT)	Document updated to include detailed templates for 2005/2006 indicators only. In addition to revisions made to several templates from 2004/2005, changes were also made to formatting, the "Introduction and Overview" section, and the appendices. Distributed internally and to RHAs with the document "Performance Management Accountability Indicators: Data Tables" (April 21, 2006 provisional version) for review and interim use.
May 26, 2006 (<i>Current version</i>)	Other than the following major revisions, only minor changes were made to templates from April 21, 2006 version: <ul style="list-style-type: none"> • calculation methodology for "Injury hospitalization rate per 1,000 population (age 0 to 19 years)" • calculation methodology for "Hospitalization rate due to falls per 1,000 population (age 65 years and over)". Distributed with the document "Performance Management Accountability Indicators: Data Tables" (May 26, 2006).

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Performance Management Accountability Indicators

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INTRODUCTION AND OVERVIEW

The accountability relationship established with Regional Health Authorities (RHAs) includes clearly articulated expectations and measures to monitor system performance. These performance expectations and measures are linked to funding allocation and set out in region-specific accountability documents distributed with the provincial budget in the spring of each year. This document contains detailed templates for these accountability indicators.

Following the indicator summary, this section provides a brief overview of:

- the indicator development and review process;
- how the indicators map to the four goals outlined in “The Action Plan for Saskatchewan Health Care” and Saskatchewan Health’s “Performance Plan”;
- the Performance Management Dashboard; and,
- indicator categories and types of measures.

SUMMARY OF INDICATORS

The fifty-six (56) indicators for reporting in 2005/2006 are listed on the following pages. Forty-five (45) indicators were reported in 2004/2005, and eighteen (18) in 2003/2004.

Data tables are provided in the document “Performance Management Accountability Indicators: Data Tables”.

Organizational Effectiveness Indicators

Quality

- Date of last CCHSA accreditation or when accreditation is scheduled
- Number of client contacts with the Regional Quality of Care Coordinator to raise a concern
- Percentage of concerns raised with a Quality of Care Coordinator concluded within 30 days
- Percentage of critical incidents meeting timeframe for notification (3 days)
- Percentage of critical incidents meeting submission timeframe for written report (60 days or 180 days)

Health Human Resources

- Number of sick leave hours per full time equivalent (FTE) by affiliation
- Number of wage-driven premium hours (overtime and other premiums) per full time equivalent (FTE) by affiliation
- Distribution of health system full time equivalents (FTEs) by affiliation
- Number of lost-time WCB claims per 100 full time equivalents (FTEs)
- Number of lost-time WCB days per 100 full time equivalents (FTEs)
- Percentage of employees self-identifying as Aboriginal
- Worked hours as a percentage of total hours by affiliation

Financial

- Working capital ratio (current ratio)
- Number of days able to operate with working capital
- Surplus (deficit), and surplus (deficit) as a percentage of actual operating expenditures

Communications and Issues Management

- Key activities undertaken by RHA to address public confidence reported

Program-Specific Indicators

Province-Wide Services

- Number of exams as a percentage of agreed on target for specialized medical imaging services: magnetic resonance imaging (MRI) scans

Performance Management Accountability Indicators

- Number of exams as a percentage of agreed on target for specialized medical imaging services: computed tomography (CT) scans
- Average wait time for admission to Saskatchewan Hospital North Battleford (SHNB)
- Alcohol and drug inpatient treatment completion rate per 100 admissions – Calder Centre
- Length of stay efficiency of inpatient rehabilitation programs – Wascana Rehabilitation Centre and Saskatoon City Hospital

Acute Care

- Number of surgical cases, and percentage of surgical cases performed as day surgery
- Percentage of Priority Level II, IV and VI surgical cases completed within Saskatchewan's Target Time Frames

Institutional Supportive Care

- Average wait time between approval for placement and placement for institutional supportive care services
- Case mix index for institutional supportive care facilities
- Prevalence of pressure sores: percentage of institutional supportive care residents with pressure sores

Home-Based Supportive Care

- Average wait time between assessment and commencement of supportive home care services

Population Health Services

- Percentage of eligible population receiving recommended immunization at second birthday
- Percentage of facilities in compliance with *The Tobacco Control Act* in the category that includes: billiard halls / bingo establishments / bowling centres / casinos / restaurants / taverns
- Percentage of licensed or regulated facilities inspected each year (pursuant to *The Public Health Act*)
- Percentage of population (age 12 years and over) who are current (daily or occasional) smokers
- Influenza immunization rate per 100 population (age 65 years and over)

Community Care Services

- Alcohol and drug outpatient treatment completion rate per 100 admissions

Primary Health Services

- Percentage of RHA population with geographic proximity to primary health care teams
- Total number of new primary health care teams developed in the current year
- Regional Operational / Budget Plan includes an updated Primary Health Care Plan that identifies the location of primary health care teams
- Regional Operational / Budget Plan includes an updated Primary Health Care Plan that includes an updated Diabetes Plan
- Regional Operational / Budget Plan includes an updated Primary Health Care Plan that outlines potential primary health care financial requirements
- RHA participated in 5-year evaluations of demonstration sites, as required

Mental Health and Addiction Services

- Average length of stay of mental health inpatients compared to expected length of stay
- Mental health inpatient readmission rate per 100 mental health inpatients
- Alcohol and drug inpatient treatment completion rate per 100 admissions
- Average wait time for admission to alcohol and drug inpatient services

Program Support Services

- Expenditures in program support funding pool as a percentage of total RHA operating expenditures

Health Status and Outcome Indicators

- Infant mortality rate per 1,000 live births
- Low birth weight and high birth weight rates per 100 live births
- Potential years of life lost per 100,000 population (age 0 to 74 years) by major causes of death
- Disability-free life expectancy (at birth and at age 65 years)
- Life expectancy (at birth and at age 65 years)
- Self-rated health status: percentage of population (age 12 years and over) who report their health as very good or excellent
- Percentage of population (age 18 to 64 years) who are overweight or obese

Performance Management Accountability Indicators

- Percentage of population (age 12 years and over) who report physical activity participation levels of active / moderately active or inactive
- Number of visits to a physician for a mental health reason
- Age-adjusted diabetes prevalence rate per 1,000 population
- Injury hospitalization rate per 1,000 population (age 0 to 19 years)
- Hospitalization rate due to falls per 1,000 population (age 65 years and over)

“Appendix A – Indicators for Future Use” contains template headers (and in some cases, complete templates) for the following twenty-eight (28) indicators that will become active for reporting in 2006/2007 or later.

Organizational Effectiveness Indicators

Quality

- Patient satisfaction
- “Patient safety indicator”

Health Human Resources

- The number of positions sitting vacant for periods longer than six months

Capital

- Annual equipment maintenance costs as a percentage of annual equipment replacement costs

Program-Specific Indicators

Province-Wide Services

- Volume and hours of service for specialized medical imaging services
- Number of patients as a percentage of agreed on target for specialized medical imaging services: magnetic resonance imaging (MRI) scans
- Number of patients as a percentage of agreed on target for specialized medical imaging services: computed tomography (CT) scans

Acute Care

- Cumulative number of surgical cases performed as a percentage of target and variance from target
- Number and percentage of surgical cases on wait list that have already waited over 12 and 18 months

Home-Based Supportive Care

- Case mix index for supportive home care services
- Average wait time between referral and assessment for supportive home care services

Population Health Services

- Exclusive breastfeeding rates
- Percentage of genital chlamydia cases with complete or required surveillance information in the electronic provincial surveillance system within established time frames

Community Care Services

- Average wait time between initial contact (with client requesting service, or referral from another provider) and first face-to-face contact by a mental health services provider for outpatient mental health services (child and youth, adult community, psychiatric rehabilitation)
- Problem gambling treatment completion rates per 100 admissions
- Average wait time for admission to alcohol and drug outpatient services

Home-Based Acute and Palliative Care

- Average wait time between referral and assessment for acute and palliative home care services
- Average wait time between assessment and commencement of acute and palliative home care services
- Percentage of palliative home care clients with unresolved pain
- Percentage of palliative home care clients who choose to die at home and receive services in support of that option
- Percentage of patients discharged from acute care to home care with post-acute discharge plan in place on discharge

Performance Management Accountability Indicators

Primary Health Services

- Number of discrete clients receiving primary health care services in the RHA
- Average number of contacts per client receiving services in the RHA
- Number of Healthline calls for the RHA

Emergency Response Services

- "Chute time" (placeholder for potential new indicator)

Mental Health and Addiction Services

- Average wait time for admission to alcohol and drug long-term residential services
- Average wait time for admission to alcohol and drug detoxification services
- Average wait time for admission to alcohol and drug stabilization services

"Appendix B – Inactive Indicators" contains template headers for the following twenty-seven (27) indicators that are no longer active.

Organizational Effectiveness Indicators

Health Human Resources

- Total cost to the system of lost-time WCB claims
- Turnover rate: separation rate per 100 permanent full and part time employees
- Turnover rate: rate of internal transfers and promotions per 100 full and part time employees

Financial

- Budget versus actual operating expenditures by funding pool

Program-Specific Indicators

Province-Wide Services

- Average length of stay of mental health inpatients at Saskatchewan Hospital North Battleford (SHNB), by unit
- Rehabilitation treatment completion rates – Wascana Rehabilitation Centre and Saskatoon City Hospital
- Average length of stay of rehabilitation inpatients – Wascana Rehabilitation Centre and Saskatoon City Hospital

Acute Care

- Lapses in service availability
- Retention rate: percentage of appropriate acute care inpatient separations provided within region of residence
- Actual length of stay of acute inpatients compared to expected length of stay
- Case mix adjusted mortality ratio

Medical/Physician Services – Specialists

- Number of interruptions in Tier I coverage
- Implementation and maintenance of standardized workload measures and reporting systems

Institutional Supportive Care

- Average wait time between referral and assessment for institutional supportive care services
- Case mix index for institutional supportive care residents on admission to institutional supportive care

Home-Based Supportive Care

- Distribution of level of care for supportive home care upon admission to institutional supportive care
- Number of supportive home care clients offered an institutional supportive care bed and then not accepted

Population Health Services

- Genital chlamydia rate per 100,000 population
- Population health promotion plan approved by RHA boards and submitted as part of health region operational plans (fall 2004) and progress report March 31, 2005

Home-Based Acute and Palliative Care

- Average number of non-acute days in hospital for acute home care clients

Performance Management Accountability Indicators

Primary Health Services

- Primary Health Care planning / steering committee has public, intersectoral and front line staff representation

Emergency Response Services

- Percentage of ambulance calls responded to where at least one of the emergency medical service providers has at least basic-EMT level training
- Number and cost of ambulance service waiting time hours billed, and average waiting time per call for ambulance calls involving waiting time

Medical/Physician Services – Other

- Implementation and maintenance of standardized workload measures and reporting systems
- RHA consistency with provincially established compensation rates and practices

Health Status and Outcome Indicators

- Risk adjusted mortality rates
- Standardized hospital mortality rates

DEVELOPMENT AND REVIEW PROCESS

Extensive work has been done to define and refine the indicators and measures set out in the Accountability Document. The Strategic Committee on Indicator Development (SCID), an advisory group with representation from Saskatchewan Health, the RHAs, Saskatchewan Cancer Agency, the Health Quality Council and the Office of the Provincial Auditor, was in place from 2003 until March 2005 to provide strategic advice. A complementary department group, the Technical Committee on Indicator Development (TCID), continues to work both internally and with regions on developing, reviewing and revising the indicator templates.

Every indicator was assessed on the following criteria:

- **Reliable and Valid:** Scientifically sound. The concept intended to be measured is being done so consistently (reliability) and accurately (validity).
- **Sensitive and Specific:** Responsive and accurate for the purpose that the indicator is used.
 - Sensitive* – readily responding to external stimuli.
 - Specific* – definite, having a distinct effect. If we make a change, we should readily see it in an indicator. Alternatively, if we see an indicator change, it can be correlated to an action/initiative that was undertaken.
- **Easily Understood and Used:** Easy to understand by the intended users (in this case, the RHA boards and senior leadership team).
- **Audience Appropriate:** Suitable for the intended audience and purpose (in this case, for assessing RHA accountability).
- **Clear Direction for Change:** The desired direction for performance improvement is clear.
- **Feasible to Obtain:** Measurable in a practical, non-intrusive and cost efficient way, and derived wherever possible from available and accessible management information systems.
- **Comparable:** Comparable across jurisdictions (e.g. other provinces, nationally) and over time.
- **Actionable:** Indicator information provides direction for quality improvement activities.

In addition, the entire set of indicators was assessed to determine if together they:

- **Measure activity and progress around priority expectations and objectives.**
- **Provide a balanced picture** across objectives / program areas / funding pools, across types of indicators (e.g. output, outcome, quality, etc.), and between good and bad news.
- **Have minimal overlap and duplication**, and provide information that is measurable and useable in an ethical and legal way.

MAP OF INDICATORS TO THE ACTION PLAN

“The Action Plan for Saskatchewan Health Care” and Saskatchewan Health’s “Performance Plan” present four goals for the health system:

- Improved Access to Quality Health Services;
- Effective Health Promotion and Disease Prevention;
- Retain, Recruit and Train Health Providers; and,
- A Sustainable, Efficient, Accountable Quality Health System.

The following table illustrates how the indicators included in this document are linked to these broad health system goals.

BUILDING A PROVINCE OF HEALTHY PEOPLE AND HEALTHY COMMUNITIES				
Improved Access to Quality Health Services				
Number of exams as a percentage of agreed on target for specialized medical imaging services: magnetic resonance imaging (MRI) scans	Number of exams as a percentage of agreed on target for specialized medical imaging services: computed tomography (CT) scans	Average wait time for admission to Saskatchewan Hospital North Battleford (SHNB)	Number of surgical cases, and percentage of surgical cases performed as day surgery	Percentage of Priority Level II, IV and VI surgical cases completed within Saskatchewan's Target Time Frames
Average wait time between approval for placement and placement for institutional supportive care services	Average wait time between assessment and commencement of supportive home care services	Percentage of RHA population with geographic proximity to primary health care teams	Total number of new primary health care teams developed in the current year	Regional Operational / Budget Plan includes an updated Primary Health Care Plan that identifies the location of primary health care teams
Regional Operational / Budget Plan includes an updated Primary Health Care Plan that includes an updated Diabetes Plan	Regional Operational / Budget Plan includes an updated Primary Health Care Plan that outlines potential primary health care financial requirements	RHA participated in 5-year evaluations of demonstration sites, as required	Average wait time for admission to alcohol and drug inpatient services	
Effective Health Promotion and Disease Prevention				
Percentage of eligible population receiving recommended immunization at second birthday	Percentage of facilities in compliance with <i>The Tobacco Control Act</i> in the category that includes: billiard halls / bingo establishments / bowling centres / casinos / restaurants / taverns	Percentage of licensed or regulated facilities inspected each year (pursuant to <i>The Public Health Act</i>)	Percentage of population (age 12 years and over) who are current (daily or occasional) smokers	Influenza immunization rate per 100 population (age 65 years and over)
Infant mortality rate per 1,000 live births	Low birth weight and high birth weight rates per 100 live births	Potential years of life lost per 100,000 population (age 0 to 74 years) by major causes of death	Disability-free life expectancy (at birth and at age 65 years)	Life expectancy (at birth and at age 65 years)
Self-rated health status: percentage of population (age 12 years and over) who report their health as very good or excellent	Percentage of population (age 18 to 64 years) who are overweight or obese	Percentage of population (age 12 years and over) who report physical activity participation levels of active / moderately active or inactive	Age-adjusted diabetes prevalence rate per 1,000 population	Injury hospitalization rate per 1,000 population (age 0 to 19 years)
Hospitalization rate due to falls per 1,000 population (age 65 years and over)				

Performance Management Accountability Indicators

Retain, Recruit and Train Health Providers				
Number of sick leave hours per full time equivalent (FTE) by affiliation	Number of wage-driven premium hours (overtime and other premiums) per full time equivalent (FTE) by affiliation	Distribution of health system full time equivalents (FTEs) by affiliation	Number of lost-time WCB claims per 100 full time equivalents (FTEs)	Number of lost-time WCB days per 100 full time equivalents (FTEs)
Percentage of employees self-identifying as Aboriginal	Worked hours as a percentage of total hours by affiliation			
A Sustainable, Efficient, Accountable Quality Health System				
Date of last CCHSA accreditation or when accreditation is scheduled	Number of client contacts with the Regional Quality of Care Coordinator to raise a concern	Percentage of concerns raised with a Quality of Care Coordinator concluded within 30 days	Percentage of critical incidents meeting timeframe for notification (3 days)	Percentage of critical incidents meeting submission timeframe for written report (60 days or 180 days)
Working capital ratio (current ratio)	Number of days able to operate with working capital	Surplus (deficit), and surplus (deficit) as a percentage of actual operating expenditures	Key activities undertaken by RHA to address public confidence reported	Alcohol and drug inpatient treatment completion rate per 100 admissions – Calder Centre
Length of stay efficiency of inpatient rehabilitation programs – Wascana Rehabilitation Centre and Saskatoon City Hospital	Case mix index for institutional supportive care facilities	Prevalence of pressure sores: percentage of institutional supportive care residents with pressure sores	Alcohol and drug outpatient treatment completion rate per 100 admissions	Average length of stay of mental health inpatients compared to expected length of stay
Mental health inpatient readmission rate per 100 mental health inpatients	Alcohol and drug inpatient treatment completion rate per 100 admissions	Expenditures in program support funding pool as a percentage of total RHA operating expenditures	Number of visits to a physician for a mental health reason	

*Shading (light grey) indicates those measures included in the Performance Management Dashboard.

References

- Saskatchewan Health. 2005. "2005-2006 Provincial Budget Performance Plan – Saskatchewan Health".
- Saskatchewan Health. December 2001. "The Action Plan for Saskatchewan Health Care".

PERFORMANCE MANAGEMENT DASHBOARD

The performance management dashboard is based on the four perspectives **Public/Stakeholder**, **Financial**, **Program/Process** and **Sustainability/Growth**, and is consistent with the four goals outlined in "The Action Plan for Saskatchewan Health Care" and Saskatchewan Health's "Performance Plan" (see previous sub-section). From all of the expectations and indicators in the accountability document, the dashboard identifies a subset of performance management directions that reflect select, key government expectations for the fiscal year.

Utilizing a scorecard framework ensures that organizations look at their performance from a number of perspectives, and that they develop indicators relative to each perspective. The strength of this approach is in linking indicators to strategy (vision and goals), and in the "balance" it supports across perspectives.

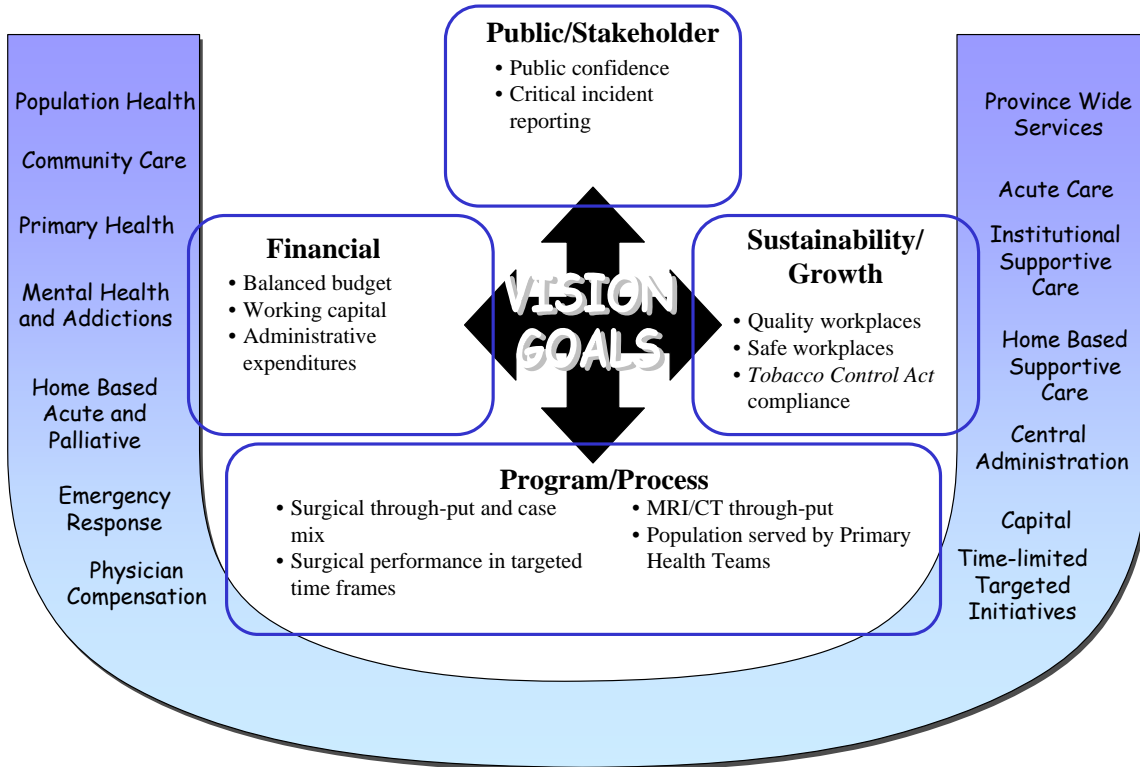
In developing the dashboard, the following questions were considered:

- | | |
|--------------------|---|
| Public/Stakeholder | What must we do to achieve our vision/goals to satisfy our public/stakeholders? |
| Financial | What must we do to succeed financially to satisfy our public/stakeholders? |

Performance Management Accountability Indicators

Program/Process	At what must we excel to satisfy our public/stakeholders and meet financial expectations?
Sustainability/Growth	What must we do to sustain our ability to grow and improve, to sustain innovation, change and continuous improvement?

The 2005/2006 Performance Management Dashboard is presented in the following diagram and table. The diagram illustrates the relationship between the four perspectives and the twelve performance management directions for 2005/2006. The information around the outside represents the funding pools to which the directions are linked. The table outlines how specific indicators are associated with each performance management direction. This subset of indicators is monitored and reported on quarterly in the Quarterly Performance Management Report (also known as the Quarterly Performance Management Dashboard).



Performance Management Accountability Indicators

Dashboard Direction	Dashboard Indicator
Public/Stakeholder	
Public confidence	Key activities undertaken by RHA to address public confidence reported
Critical incident reporting	Percentage of critical incidents meeting timeframe for notification (3 days) Percentage of critical incidents meeting submission timeframe for written report (60 days or 180 days)
Financial	
Balanced budget	Surplus (deficit) – year-to-date actual Surplus (deficit) as a percentage of actual operating expenditures – year-to-date actual
Working capital	Number of days able to operate with working capital
Administrative expenditures	Expenditures in program support funding pool as a percentage of total RHA operating expenditures
Program/Process	
Surgical through-put and case mix	Number of surgical cases, and percentage of surgical cases performed as day surgery
Surgical performance in targeted time frames	Percentage of Priority Level II, IV and VI surgical cases completed within Saskatchewan's Target Time Frames
MRI/CT through-put	Number of exams as a percentage of agreed on target for specialized medical imaging services: magnetic resonance imaging (MRI) scans Number of exams as a percentage of agreed on target for specialized medical imaging services: computed tomography (CT) scans
Population served by Primary Health Teams	Percentage of RHA population with geographic proximity to primary health care teams
Sustainability/Growth	
Quality workplaces	Number of sick leave hours per full time equivalent (FTE) by affiliation Number of wage-driven premium hours (overtime and other premiums) per full time equivalent (FTE) by affiliation Distribution of health system full time equivalents (FTEs) by affiliation
Safe workplaces	Number of lost-time WCB claims per 100 full time equivalents (FTEs) Number of lost-time WCB days per 100 full time equivalents (FTEs)
<i>Tobacco Control Act</i> compliance	Percentage of facilities in compliance with <i>The Tobacco Control Act</i> in the category that includes billiard halls / bingo establishments / bowling centres / casinos / restaurants / taverns

INDICATOR CATEGORIES AND TYPES OF MEASURES

Indicator Categories

Category	Description
Health Status	How healthy is the population? Health status can be measured in a variety of ways, including well-being, health conditions, disability (human function), or death.
Non-Medical Determinants of Health	Non-medical determinants of health are known to affect an individual's health and, in some cases, when and how health care services are used. Includes concepts such as health behaviours, living and working conditions (socio-economic factors), personal resources (social and community factors), environmental factors, and genetic factors.

Performance Management Accountability Indicators

Category	Description
Health System Performance	How healthy is the health care system? These indicators measure various aspects of the quality of health care. Includes concepts such as acceptability, accessibility, appropriateness, competence, continuity, effectiveness, efficiency, safety, and security.
Community and Health System Characteristics	These measures provide useful contextual information, but are not direct measures of health status or the quality of health care. Includes concepts such as population demographics, health system (health services), and resources such as physicians or nurses per capita.
Organizational Effectiveness	The measure of how successfully organizations achieve their missions, goals and objectives.

Adapted from:

- Canadian Institute for Health Information (CIHI). 2002. "Health Indicators Framework". Toronto, Ontario: CIHI.
- Canadian Institute for Health Information (CIHI). 2004. "Health Indicators 2004". Ottawa, Ontario: CIHI. p3.
- International Organization for Standardization – Technical Committee 215 (ISO / TC215). 2002. "Health informatics – Health indicators conceptual framework (ISO Technical Specification 21667 (ISO TS 21667))".

Types of Measures

Type	Measure
Input	The amount of resources used in the delivery of a program or service. For example: total cost of services, mix of resources, demand for services, use of resources.
Output	The results of processes completed, or the amount of products or services provided or work done. For example: number of clients served.
Process / Structure	Reporting on the process or structures in place relating inputs and outputs (not necessarily a quantitative measure).
Outcome	The extent to which a desired change, effect, or end result of programs and services is achieved. For example: percentage of clients rehabilitated.
Efficiency	The amount of work done or outcomes achieved in relation to the resources used (i.e. how well resources are being utilized). For example: cost per client served.
Appropriateness	Care/service provided is relevant to need (client or patient) and based on established standards.
Quality	The characteristics of service delivery (e.g. customer satisfaction, convenience, timeliness, accuracy) that are important to the client receiving the service. For example: patient satisfaction.
Financial	The amount of financial resources.

Adapted from:

- Harrigan, M. 2000. Quest for Quality in Canadian Healthcare, Second Edition.
- Performance Management Branch, Saskatchewan Finance. 2003. "Basics of Performance Measurement". (presentation)

ORGANIZATIONAL EFFECTIVENESS INDICATORS

This section includes measures that are intended to assess the organizational effectiveness of the Regional Health Authority (RHA) (i.e. the capacity of the RHA to improve results or continue to achieve good results).

The organizational effectiveness expectations and measures pertain to Governance and Management, Quality, Health Human Resources, Financial, Information Management, Communications and Issues Management, Capital, and Reporting.

QUALITY

Date of last CCHSA accreditation or when accreditation is scheduled

Section:	Organizational Effectiveness Indicators
Sub-Section:	Quality
Category:	Health System Performance
Type of Measure:	Process / Structure
Status:	Active (since 2004/2005)
Definition:	This measure indicates when the Regional Health Authority (RHA) was last accredited by the Canadian Council on Health Services Accreditation (CCHSA), and when the next accreditation is scheduled.

Template Content Last Changed: April 21, 2006

Interpretation

Rationale and Notes for Interpretation

Accreditation is an ongoing process that allows RHAs the opportunity to obtain an external review of the quality of care and service that is being provided and to develop plans to make improvements as warranted. These reviews are coordinated by the CCHSA, an independent, non-governmental, and non-profit national accrediting body for organizations across all health sectors in Canada. CCHSA's accreditation program operates on a three year cycle, and it is voluntary for regions to participate.

One of five possible statuses can be assigned by CCHSA as a result of the accreditation process:

Accreditation

No conditions, accreditation is granted for 3 years.

Accreditation with Condition: Report

Accreditation is granted but a report defining progress on certain issues must be submitted by the organization to the CCHSA within a defined time period.

Accreditation with Condition: Focused Visit

Accreditation is granted but the organization must undergo a focused visit generally lasting one day.

Performance Management Accountability Indicators

Accreditation with Condition: Report and Focused Visit

Accreditation is granted but there is requirement that a report and focused visit both occur within a defined period of time.

Non-Accreditation

Accreditation is not granted. The CCHSA will outline steps that must be taken.

Targets / Benchmarks

To be determined.

Contributing Factors

To be determined.

Impact on Other Indicators

To be determined.

Potential for Action and Influence

Accreditation is a continuous quality improvement effort.

The Canadian Council on Health Services Accreditation lists the following areas for health care improvement in "The Canadian Health Accreditation Report 2004".

- Patient safety
 - Safely store, use and administer medication
 - Prepare for disasters and emergencies
 - Design safe spaces and safely use equipment
 - Control the spread of infection
 - Manage risk
- Create a culture of quality
 - Evaluate and improve the quality of services and processes in the organization
 - Show the results of improvement activities
 - Develop a quality improvement plan
 - Foster quality improvement throughout the organization
 - Use industry comparisons to improve performance
- Planning and providing services to meet client's needs
 - Plan for future needs
 - Meet the needs of the population
 - Promote health and prevent and detect health problems early
 - Build strong partnerships with the community
- Supporting client rights, ethics and consent in health care delivery
 - Develop and abide by the organization's code of ethics
 - Respect client consent processes
 - Protect client and family privacy and confidentiality
 - Respect the need to guide clients' future health care decisions
- Access and service delivery
 - Assess clients' needs and manage their pain
 - Support clients in the care process
 - Manage aggressive behaviour
 - Keep clients safe and prevent infection
 - Provide timely care and service
- Strengthen health human resources
 - Provide a positive, objective evaluation process
 - Clearly define roles and responsibilities

Performance Management Accountability Indicators

- Ensure staff competency
- Strive for satisfaction
- Put processes in place to hire and retain staff
- Support independent practitioners
- Create a safe, positive work environment
- Integrate and coordinate health care services
 - Document and coordinate the integrated services plan
 - Continue to support clients following treatment or care
 - Coordinate client services
 - Develop an integrated services plan
- Quality of and access to information
 - Keep data and information confidential and secure
 - Use data to support decision making
 - Collect and manage information
- Improve health care system through research and best practice
 - Responsibly involve clients in research
 - Evaluate research activities
 - Follow research protocols and standards
 - Adopt best practice guidelines
- Good governance
 - Define roles and responsibilities
 - Evaluate performance
 - Review the mission statement
 - Manage the organization's finances
 - Review contracted services

Data Tables

Please see the corresponding section in the document "Performance Management Accountability Indicators: Data Tables".

Technical Specification

Method of Calculation

Calculation

Not applicable.

Numerator

Not applicable.

Denominator

Not applicable.

Inclusions / Exclusions

Inclusions:

- All RHAs (a "not applicable" date is reported for those RHAs that have not yet undergone the accreditation process).

Exclusions:

- None.

Data Source

Source

The Accreditation Facilitator in each RHA.

Flow

RHAs that undergo the accreditation process are required to provide a copy of their survey report and cover letter (indicating the conditions of their accreditation) to Saskatchewan Health (NOTE: the assignment of accreditation status is given by the CCHSA, and the RHA is notified directly of the outcome). These data are transferred from the Accreditation Facilitator in the region to the Provincial Quality of Care Coordinators.

Availability

Ongoing. Data for a whole year is available at the end of the fiscal year.

Limitations

Data are not necessarily available for all Regional Health Authorities at all times. At most, data will only be available for each RHA once every three years.

The accreditation process is currently a voluntary program. Saskatchewan Health strongly encourages all RHAs to pursue and attain the standards set out by the CCHSA. Reporting to Saskatchewan Health relies on compliance on the part of the Accreditation Facilitator in the RHA.

References

- Canadian Council on Health Services Accreditation (CCHSA). 2005. "2005 Accreditation Recognition Guidelines". Ottawa, Ontario: CCHSA. (www.cchsa.ca/pdf/SurveyGuidelines2005.pdf)
- Canadian Council on Health Services Accreditation (CCHSA). 2005. "A Look Inside Canada's Health Care System: The Canadian Health Accreditation Report 2004". Ottawa, Ontario: CCHSA. (www.cchsa.ca/pdf/2004report.pdf)
- Canadian Council on Health Services Accreditation (CCHSA) website. (www.cchsa.ca)

Indicator Name Reference List

- **CCHSA accreditation results**
 - Accountability Document (2003/2004, 2004/2005 and 2005/2006)
 - Performance Management Accountability Indicators (March 16, 2005 and earlier versions)
- **CCHSA current accreditation status for RHAs**
 - Performance Management Accountability Indicators (March 31 and May 21, 2005 versions)
- **Date of last CCHSA accreditation or when accreditation is scheduled**
 - Accountability Document (2006/2007 onwards)
 - Performance Management Accountability Indicators (April 21, 2006 version onwards)

Number of client contacts with the Regional Quality of Care Coordinator to raise a concern

Section: Organizational Effectiveness Indicators

Sub-Section: Quality

Category: Health System Performance

Type of Measure: Quality

Status: Active (since 2004/2005)

Definition: This indicator measures the number of clients who contacted a Regional Quality of Care Coordinator (QCC) to report one or more concerns. This measure is based on the number of concerns initiated during the fiscal year reporting period April 1 to March 31.

Template Content Last Changed: April 21, 2006

Interpretation

Rationale and Notes for Interpretation

Each region has a Quality of Care Coordinator or Client Representative to handle concerns or complaints regarding services provided by the Regional Health Authority (RHA).

It is important to keep in mind that not contacting a Quality of Care Coordinator does not necessarily imply satisfaction with the health care system. One way of measuring client satisfaction is to conduct patient satisfaction surveys that may capture both clients with concerns who called the QCC to discuss and clients with concerns who did not call the QCC to discuss.

The number of client contacts to report concerns is expected to be higher in health regions that offer a higher volume of services. The number of client contacts with a QCC may increase as more clients become aware of the service.

Targets / Benchmarks

To be determined.

Contributing Factors

To be determined.

Impact on Other Indicators

To be determined.

Potential for Action and Influence

Addressing the most frequent client concerns can reduce the number of concerns raised with QCCs.

Strive for a health care system that:

- respects patients' values, preferences and expressed needs;
- coordinates and integrates care across boundaries of the system;

Performance Management Accountability Indicators

- makes cooperation among clinicians a priority;
- provides the information, communication, and education that people need and want; and,
- guarantees physical comfort, safety, emotional support, and the involvement of family and friends.

Working to improve timely access to health care services and increase patient safety can improve patient satisfaction with the health care system.

Data Tables

Please see the corresponding section in the document “Performance Management Accountability Indicators: Data Tables”.

Technical Specification

Method of Calculation

Calculation

The number of clients who contact a Regional QCC to report one or more concerns.

Numerator

Not applicable.

Denominator

Not applicable.

Inclusions / Exclusions

Inclusions:

- All concerns initiated during the fiscal year reporting period.

Exclusions:

- Non-jurisdictional concerns (e.g. concerns pertaining to a non-RHA provided service such as an individual physician’s practice, or concerns pertaining to services provided outside of the region).
- All concerns initiated prior to the fiscal year reporting period, but resolved during the reporting period.

Data Source

Source

Health Information Solutions Centre web-based database: Client Concern Handling System (CCHS).

Flow

Quality of Care Coordinators enter concern handling information directly into the web-based CCHS database. The Provincial Quality of Care Coordinators are able to independently access aggregate regional data by running reports on the database.

Availability

Annually. Data is available six months after the end of the fiscal year.

Limitations

The number of client contacts to report concerns may not reflect the total number of concerns in the system, as clients and their family members may not be aware that a formal mechanism exists to report their concerns. The number of client contacts is representative of the success of RHAs and

Performance Management Accountability Indicators

Saskatchewan Health in publicizing the role and responsibilities of the Quality of Care Coordinator in resolving client concerns.

References

Committee on Quality of Health Care in America, Institute of Medicine. 2001. "Crossing the Quality Chasm: A New Health System for the 21st Century". Washington, DC, USA: National Academies Press.

The Canadian Patient Safety Institute website. (www.patientsafetyinstitute.ca/index.html)

Farrell, Christine. May 2004. "Patient and Public Involvement in Health: The Evidence for Policy Implementation". London. UK: Department of Health.
(www.dh.gov.uk/PublicationsAndStatistics/Publications/PublicationsPolicyAndGuidance/PublicationsPolicyAndGuidanceArticle/fs/en?CONTENT_ID=4082332&chk=URGiAT)

The Institute for Family-Centered Care website. (www.familycenteredcare.org/)

The Institute for Health Care Improvement website. (www.ihl.org/ihl/topics/patientcenteredcare/)

Indicator Name Reference List

- **Number and type of complaints made to the Quality of Care Coordinator(s) for the region**
 - Accountability Document (2003/2004)
- **Number and type of concerns raised with the Quality of Care Coordinator(s) for the region**
 - Accountability Document (2004/2005)
- **Number of client contacts with the Regional Quality of Care Coordinator to raise a concern**
 - Accountability Document (2005/2006 onwards)
 - Performance Management Accountability Indicators (all versions to date)

Percentage of concerns raised with a Quality of Care Coordinator concluded within 30 days

Section: Organizational Effectiveness Indicators

Sub-Section: Quality

Category: Health System Performance

Type of Measure: Quality

Status: Active (since 2004/2005)

Definition: This indicator measures the ability of the Quality of Care Coordinator (QCC) to resolve a client concern within 30 days of first being notified of the complaint. This measure is based on the number of concerns resolved during the fiscal year reporting period April 1 to March 31.

Template Content Last Changed: April 21, 2006

Interpretation

Rationale and Notes for Interpretation

Each region has a Quality of Care Coordinator or Client Representative to handle concerns or complaints regarding services provided by the Regional Health Authority (RHA).

Those concerns that are concluded in more than 30 days are typically complex concerns that require input from other areas and often other regions.

Targets / Benchmarks

To be determined.

Contributing Factors

To be determined.

Impact on Other Indicators

To be determined.

Potential for Action and Influence

A high percent of concerns concluded within 30 days can be achieved by ensuring that the regional Quality of Care Coordinators have the time and resources to address the issues and there is a cooperative relationship among the QCCs, the clinical staff and the Provincial Quality of Care Coordinators.

Data Tables

Please see the corresponding section in the document "Performance Management Accountability Indicators: Data Tables".

Technical Specification

Method of Calculation

Calculation

The percentage of client contacts to a Quality of Care Coordinator with a reported concern that are concluded within 30 days. This measure is based on the number of concerns resolved during the fiscal year reporting period April 1 to March 31.

Numerator

The number of client contacts with a concern that are concluded within 30 days of being reported to the Quality of Care Coordinator.

Denominator

The total number of client contacts with a concern that are concluded.

Inclusions / Exclusions

Inclusions:

- All concerns resolved during the fiscal year reporting period.

Performance Management Accountability Indicators

Exclusions:

- Client contacts that raise non-jurisdictional concerns (e.g. concerns pertaining to a non-RHA provided service such as an individual physician's practice, or concerns pertaining to services provided outside of the region).
- All concerns initiated during the fiscal year reporting period, but resolved after the reporting period.

Data Source

Source

Health Information Solutions Centre web-based database: Client Concern Handling System (CCHS).

Flow

Quality of Care Coordinators enter concern handling information directly into the web-based CCHS database. The Provincial Quality of Care Coordinators are able to independently access aggregate regional data by running reports on the database.

Availability

Annually. Data is available six months after the end of the fiscal year.

Limitations

Conclusion of a concern within 30 days does not necessarily represent resolution or satisfaction for the client who reported the concern. Rather, it represents the conclusion of the investigation / intervention process and the sharing of those outcomes with the client.

References

None.

Indicator Name Reference List

- **Percentage of issues raised with Quality of Care Coordinator resolved within 30 days**
 - Accountability Document (2003/2004 and 2004/2005)
- **Percentage of concerns raised with a Quality of Care Coordinator concluded within 30 days**
 - Accountability Document (2005/2006 onwards)
 - Performance Management Accountability Indicators (all versions to date)

Percentage of critical incidents meeting timeframe for notification (3 days)

Section: Organizational Effectiveness Indicators

Sub-Section: Quality

Category: Health System Performance

Type of Measure: Quality

Performance Management Accountability Indicators

Status: Active (since 2005/2006)

Quarterly Performance Management Report (“Dashboard”) measure (since 2005/2006)

[Originally planned to be Active for 2004/2005, and included as a Performance Management Dashboard measure starting the third quarter of 2004/2005. However, data was not available until 2005/2006.]

[This indicator will be dropped as an accountability indicator in 2006/2007, but will continue to exist for internal tracking purposes.]

Definition: This indicator measures the compliance of a Regional Health Authority (RHA) with meeting specified timeframe requirements for reporting critical incidents.

All RHAs are required by legislation to notify Saskatchewan Health of any and all critical incidents (defined by the *Saskatchewan Critical Incident Reporting Guideline, 2004*) within 3 business days after the day on which the incident occurs or the RHA first becomes aware of the critical incident. Saskatchewan Health is also to be notified of all critical incidents (defined by the *Saskatchewan Critical Incident Reporting Guideline, 2004*) that occur in a Health Care Organization (HCO) within 6 business days after the day on which the incident occurs or within 3 business days after the day on which the RHA first becomes aware of the incident.

Template Content Last Changed: April 21, 2006

Interpretation

Rationale and Notes for Interpretation

We expect the number of critical incidents reported by Regional Health Authorities and Health Care Organizations to increase over time, as a culture of open discussion and reporting of incidents develops within regions, and as education regarding reporting criteria and requirements disperses throughout the regions.

By “critical incident” we mean a serious adverse health event including, but not limited to, the actual or potential loss of life, limb or function related to a health service provided by, or a program operated by, a regional health authority (RHA) or health care organization (HCO).

Reporting requirements came into effect in September 2004 upon proclamation of *The Regional Health Services Amendment Act, 2004*.

Targets / Benchmarks

100% compliance.

Contributing Factors

To be determined.

Impact on Other Indicators

To be determined.

Potential for Action and Influence

The percentage of critical incidents meeting the timeframe for notification can be increased by ensuring that all service providers are aware of the reporting requirements and that Quality of Care Coordinators,

Performance Management Accountability Indicators

Risk Managers, or their designates have the time and resources to report critical incidents to the Provincial Quality of Care Coordinators.

Data Tables

Please see the corresponding section in the document "Performance Management Accountability Indicators: Data Tables".

Technical Specification

Method of Calculation

Calculation

The percentage of critical incidents in an RHA or HCO where notification occurs within 3 business days after the day on which the RHA first becomes aware of the incident.

Numerator

The number of critical incidents in an RHA or HCO where notification occurs within the defined time frame.

Denominator

The total number of critical incidents for each RHA and HCO.

Inclusions / Exclusions

Inclusions:

- Reported incidents must meet the criteria outlined within the *Saskatchewan Critical Incident Reporting Guideline, 2004* in order to be considered a critical incident.

Exclusions:

- Not applicable.

Data Source

Source

Acute and Emergency Services database: Critical Incident Monitoring System (CIMS).

Flow

Quality of Care Coordinators, Risk Managers, or their designates report critical incidents to the Provincial Quality of Care Coordinators, or to program representatives within Saskatchewan Health.

Availability

Quarterly. Data is available one month after the end of the quarter.

Limitations

Regional Health Authorities can only report the information they know about. It is possible for critical incidents to occur within regions and the Risk Manager or Quality of Care Coordinator not to be informed (either intentionally suppressed or the manager responsible for unit / area is not aware of reporting requirements).

References

Saskatchewan Health. 2004. *Saskatchewan Critical Incident Reporting Guideline, 2004*.
(www.health.gov.sk.ca/mc_sk_ci_rep_guideline_2004.pdf)

Indicator Name Reference List

- **Frequency of reporting critical incidents**
 - Accountability Document (2003/2004)
- **Region is meeting requirement for critical incident reporting within defined times**
 - Accountability Document (2004/2005)
- **Percentage of critical incidents meeting timeframe for notification (3 days)**
 - Accountability Document (2005/2006)
 - Performance Management Accountability Indicators (all versions to date)
 - Performance Management Dashboard (2005/2006)

Percentage of critical incidents meeting submission timeframe for written report (60 days or 180 days)

Section: Organizational Effectiveness Indicators

Sub-Section: Quality

Category: Health System Performance

Type of Measure: Quality

Status: Active (since 2005/2006)

Quarterly Performance Management Report (“Dashboard”) measure (since 2005/2006)

[Originally planned to be Active for 2004/2005, and included as a Performance Management Dashboard measure starting the third quarter of 2004/2005. However, data was not available until 2005/2006.]

[This indicator will be dropped as an accountability indicator in 2006/2007, but will continue to exist for internal tracking purposes.]

Definition: This indicator measures the compliance of a Regional Health Authority (RHA) with meeting the timeframe requirements for submitting the written report concerning the critical incident.

All RHAs are required by legislation to notify Saskatchewan Health of any and all critical incidents (defined by the *Saskatchewan Critical Incident Reporting Guideline, 2004*) within 3 business days after the day on which the incident occurs or the RHA first becomes aware of the critical incident. Saskatchewan Health is also to be notified of all critical incidents (defined by the *Saskatchewan Critical Incident Reporting Guideline, 2004*) that occur in a Health Care Organization (HCO) within 6 business days after the day on which the incident occurs or within 3 business days after the day on which the RHA first becomes aware of the incident.

The final report outlines the steps taken to investigate the incident, any recommendations that arose as a result of the review, and any changes implemented in the RHA or HCO as a result of the incident. The report is required to be submitted within 60 days after the day on which the RHA first becomes aware of the critical incident. In exceptional circumstances, an extension may be granted to allow a total of 180 days.

Template Content Last Changed: April 21, 2006

Interpretation

Rationale and Notes for Interpretation

We expect the number of critical incidents reported by Regional Health Authorities and Health Care Organizations to increase over time, as a culture of open discussion and reporting of incidents develops within regions, and as knowledge of reporting criteria and requirements disseminates throughout the regions.

By “critical incident” we mean a serious adverse health event including, but not limited to, the actual or potential loss of life, limb or function related to a health service provided by, or a program operated by, a regional health authority (RHA) or health care organization (HCO).

Reporting requirements came into effect in September 2004 upon proclamation of *The Regional Health Services Amendment Act, 2004*. Data on written report submission will always lag by up to six months because of the timeframe in which reports may be submitted.

Targets / Benchmarks

100% compliance.

Contributing Factors

To be determined.

Impact on Other Indicators

To be determined.

Potential for Action and Influence

The percentage of critical incidents meeting the submission timeframe for a written report can be increased by ensuring that all service providers are aware of the reporting requirements and are willing to cooperate with the investigation and that Quality of Care Coordinators, Risk Managers, or their designates have the time and resources to investigate and report on the review.

Data Tables

Please see the corresponding section in the document “Performance Management Accountability Indicators: Data Tables”.

Technical Specification

Method of Calculation

Calculation

The percentage of critical incidents in an RHA or HCO where the written report is submitted within the appropriate timeframe (60 days or 180 days).

Numerator

The number of critical incidents in an RHA or HCO where the written report is received within the defined time frame.

Performance Management Accountability Indicators

Denominator

The total number of critical incidents for each RHA and HCO.

Inclusions / Exclusions

Inclusions:

- Reported incidents must meet the criteria outlined within the *Saskatchewan Critical Incident Reporting Guideline, 2004* in order to be considered a critical incident.

Exclusions:

- Not applicable.

Data Source

Source

Acute and Emergency Services database: Critical Incident Monitoring System (CIMS).

Flow

Quality of Care Coordinators, Risk Managers, or their designates, report critical incidents to the Provincial Quality of Care Coordinators, or to program representatives within Saskatchewan Health.

Availability

Quarterly. Data is available six months after the end of the quarter.

Data is currently not available for the complete 2005/2006 fiscal year.

Limitations

Regional Health Authorities can only report the information they know about. It is possible for critical incidents to occur within regions and the Risk Manager or Quality of Care Coordinator not to be informed (either intentionally suppressed or the manager responsible for unit / area is not aware of reporting requirements).

References

Saskatchewan Health. 2004. *Saskatchewan Critical Incident Reporting Guideline, 2004*.
(www.health.gov.sk.ca/mc_sk_ci_rep_guideline_2004.pdf)

Indicator Name Reference List

- **Frequency of reporting critical incidents**
 - Accountability Document (2003/2004)
- **Region is meeting requirement for critical incident reporting within defined times**
 - Accountability Document (2004/2005)
- **Percentage of critical incidents meeting submission timeframe for written report (60 days or 180 days)**
 - Accountability Document (2005/2006)
 - Performance Management Accountability Indicators (all versions to date)
 - Performance Management Dashboard (2005/2006)

HEALTH HUMAN RESOURCES

Number of sick leave hours per full time equivalent (FTE) by affiliation

Section:	Organizational Effectiveness Indicators
Sub-Section:	Health Human Resources
Category:	Organizational Effectiveness
Type of Measure:	Efficiency
Status:	Active (since 2004/2005) Quarterly Performance Management Report (“Dashboard”) measure (since 2004/2005)
Definition:	The total number of work hours that employees are absent due to illness or injury per full time equivalent (FTE) by affiliation for a specified time period (e.g. fiscal year, quarter).

Template Content Last Changed: May 26, 2006

Interpretation

Rationale and Notes for Interpretation

Work absence is the failure of employees to report for work when they are scheduled to work. Absence as a result of illness or injury (sick leave) is often used as a proxy measure for a healthy workplace. In the 2000 Canadian Labour and Business Centre Leadership Survey, business leaders and trade unions identified low absenteeism rates / high morale among the top five indicators of a healthy workplace. Absenteeism is one of the five “Quality of Worklife Indicators” identified by the Canadian Council on Health Services Accreditation (2002) (how CCHSA is defining absenteeism to be determined).

Statistics Canada Labour Force Survey indicates that those in health occupations are more likely than those in other sectors to miss work due to illness or disability. In 2000, on average, 7.2% of full-time workers in health occupations missed work each week due to illness or disability. This ranged from a low of 5.4% in Prince Edward Island to a high of 9.3% in Nova Scotia; Saskatchewan’s rate was 8.0%. Professional nurses, who comprise the largest professional group of the health workforce in Saskatchewan, have the highest rate of absences of any occupation.

Absence from scheduled work is a “lagging” indicator. It reflects the cumulative impact of a wide range of workplace problems including psychological stress, low staff morale, and employee dissatisfaction.

Work absence correlates closely with turnover, and therefore becomes an early warning of retention issues. It can also affect the morale of the employees who come to work every day (Fitz-enz and Davison 1995). Addressing its root causes could contribute significantly to employee quality of life and the health care system’s overall efficiency and cost-effectiveness.

Work absences reflect a wide range of workplace problems. If problems are not being addressed one should not expect to see changes in the rate.

Several health care organizations currently do not use the Saskatchewan Association of Health Organizations (SAHO) payroll data system. Information related to these organizations are therefore not included in any reports generated by the system. Also, an individual employer is only able to obtain its

Performance Management Accountability Indicators

own information from the SAHO payroll system. Thus, a regional health authority (RHA) is only able to obtain information related to its role as employer. These data do not include those of the other employers (affiliates or other health care organizations) operating within the geographic boundary of the region. The information provided by SAHO to Saskatchewan Health is aggregated at the geographic region level (i.e. not at the level of the employer), but includes all employers using the payroll system.

Please see "Appendix C – Definitions for HHR Indicators" for definitions of several key terms used in the Health Human Resource (HHR) indicators.

Targets / Benchmarks

As with many human resource indicators, benchmarks will have to be developed. In the interim, Regional Health Authorities can use the provincial rates or those of the best performers as benchmarks.

Contributing Factors

- Legitimate illness or injury. Some sources suggest 70% of workplace lost days are due to legitimate personal illness or injury.
- Rates of absenteeism are known to be higher in unionized workplaces than in non-unionized ones.
- Women are more frequently absent than men.
- As the workforce ages, the physical demands of the workplace take more of a toll on many groups of health care workers.
- Family pressures and personal work ethic influence the indicator.
- Generally, the higher the rate of pay and the greater the length of service of the employee, the fewer the absences.

Impact on Other Indicators

Increased work absence rates correlate closely with increased turnover; it should be viewed as an early warning indicator of retention issues.

Potential for Action and Influence

To be determined.

Data Tables

Please see the corresponding section in the document "Performance Management Accountability Indicators: Data Tables".

Technical Specification

Method of Calculation

Calculation

The total number of work hours absent due to illness or injury divided by the total number of FTEs, for a specified time period.

Separate calculations are done for each affiliation:

- Provider Group:
 - Canadian Union of Public Employees (CUPE)
[Sun Country, Regina Qu'Appelle, Sunrise, Prince Albert Parkland, Prairie North]

Performance Management Accountability Indicators

- Service Employees International Union (SEIU)
[Five Hills, Cypress, Saskatoon, Heartland, Métis Addictions Council of Saskatchewan Incorporated (MACSI)]
- Saskatchewan Government and General Employees Union (SGEU)
[Kelsey Trail, Mamawetan Churchill River, Keewatin Yatthé, Saskatchewan Cancer Agency]
- Health Sciences Association of Saskatchewan (HSAS)
- Out-of-scope or Other (OOS/OTHER)
 - This category captures all non-unionized employees on the Saskatchewan Association of Health Organizations (SAHO) payroll system, not just management personnel.
- Saskatchewan Union of Nurses (SUN)
- Retail, Wholesale and Department Store Union (RWDSU)
[Regina Qu'Appelle (laundry services)]

Example: For the 2nd Quarter 2004/2005, Relay Health Region HSAS staff recorded 8,464.19 sick hours for 566.5 FTEs, or 14.94 sick hours per FTE in the three month period.

Numerator

The number of worked hours that employees are absent from the workplace due to illness or injury recorded as sick time in the Saskatchewan Association of Health Organizations (SAHO) payroll system for a specified time period.

Denominator

The total number of full-time, part-time and casual FTEs for a specified time period (please see the indicator "Distribution of health system full time equivalents (FTEs) by affiliation").

Inclusions / Exclusions

Inclusions:

- FTEs represented by CUPE, SEIU, SGEU, HSAS, OOS/OTHER, SUN, and RWDSU.
- Full time, part time and casual employees.
- All time definers associated with sick time:
 - Sick Regular – Regular (ID), Sick Regular – Extended (XD), Sick (SGEU) – Regular (IZ), Sick (SGEU) – Extended (XI), Immunization/Quarantine – Regular (IQ), Immunization/Quarantine – Extended (XQ), Health Care Hours – Regular (IH), and Health Care Hours – Extended (XH)
- Short-term disability (includes SAHO coding: Pay Type 45 – SICK).

Exclusions:

- Absences from regularly scheduled work due to disability, personal or family responsibility, earned days off (EDOs), annual leave or extended leaves of absence (excludes SAHO coding: Pay Type 48 – WCB Hosp and 64 – WCB Net; Pay Type 68 – Family Leave; Pay Type 47 – Paid LOA).

Source

Sick time data – "Absence Trending Report", SAHO payroll data system

FTEs – SAHO Statistical Reports (Paid FTE), SAHO payroll data system

Flow

Data from the SAHO payroll data system are available on a monthly basis to Saskatchewan Health and to all the regions that use the system. Approximately 97% of the public healthcare system FTEs are included, including the Saskatchewan Cancer Agency (SCA) and the Métis Addictions Council of Saskatchewan Incorporated (MACSI). Several health care organizations currently do not use the SAHO payroll system, and it is not expected that they will.

Availability

Quarterly. Data is available one month after the end of the quarter.

Limitations

Tracking absences from work is a challenge. There are currently no national measurement standards. Several organizations are calling for the Canadian Institute for Health Information (CIHI) to institute mandatory reporting of absenteeism. There are national comparative data from the Labour Force Survey, however, this is a self-report of work absences.

There are several ways of calculating absence rates. The Statistics Canada Labour Force Survey, for example, tracks three measures: an absence incidence rate, an inactivity rate, and the total number of days lost per worker per year. Because of the variety of measures and reasons for absences, comparisons with external organizations are not recommended (comparisons could be made within the province, across work units or occupational groups providing consistent definitions are used).

Tracking the cost of work absence is recommended, as is tracking paid and unpaid leave separately. As with many HR measures, a meaningful way to present and interpret this indicator at the organizational level would be to provide trend or time series information.

The aggregate indicator may reflect the attendance habits of a few individual employees; it is estimated that 80% of work absence is attributable to 20% of employees.

References

- Canadian Council on Health Services Accreditation (CCHSA). 2002. "Quality of Worklife Indicators".
- Canadian Fitness and Lifestyle Research Institute. Research File ISSN 1188-6641.
- Canadian Labour and Business Centre. 2000. "Canadian Labour and Business Centre Leadership Survey: The Healthy Workplace".
- Canadian Labour and Business Centre. February 2002. "Full-time Equivalents and Financial Costs Associated with Absenteeism, Overtime, and Involuntary Part-time Employment in the Nursing Profession" (a report prepared for the Canadian Nursing Advisory Committee).
- Fitz-enz, J. and B. Davison. 1995. How To Measure Human Resources Management, Third Edition. New York: McGraw Hill.
- Lowe, Graham. June 2002. "CNA Quality of Worklife Indicators Workshop Report". Canadian Nurses Association (CNA).
- Saskatchewan Health. December 2005. "Working Together: Saskatchewan's Health Workforce Action Plan". (www.health.gov.sk.ca/hplan_health_workforce_action_plan.pdf)
- Statistics Canada. 2002. Labour Force Survey reported in *Canada's Health Care Providers, CIHI 2002*.
- Statistics Canada. 2002. "Work Absences". *The Daily – June 4, 2002*. (www.statcan.ca/Daily/English/020704/d020704h.htm)

Indicator Name Reference List

- **Number of days sick leave per FTE per year**
 - Accountability Document (2003/2004)
- **Total sick leave by union affiliation**
 - Core Indicators for Progress & Results (2003/2004)
- **Number of sick hours/days leave per FTE by affiliation (by occupation when available)**
 - Accountability Document (2004/2005)

Performance Management Accountability Indicators

- **Number of sick leave hours per FTE by affiliation**
 - Performance Management Dashboard (2004/2005 and 2005/2006)
- **Number of sick leave hours per full time equivalent (FTE) by affiliation**
 - Accountability Document (2005/2006 onwards)
 - Performance Management Accountability Indicators (all versions to date)
 - Performance Management Dashboard (2006/2007 onwards)

Number of wage-driven premium hours (overtime and other premiums) per full time equivalent (FTE) by affiliation

Section: Organizational Effectiveness Indicators

Sub-Section: Health Human Resources

Category: Organizational Effectiveness

Type of Measure: Efficiency

Status: Active (since 2004/2005)

Quarterly Performance Management Report (“Dashboard”) measure (since 2004/2005)

Definition: The total number of wage-driven premium hours per full time equivalent (FTE) by affiliation for a specified time period (e.g. fiscal year, quarter).

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Interpretation

Rationale and Notes for Interpretation

Overtime hours have become an increasing concern for the regions and Saskatchewan Health over the past few years. Historically the department has not funded overtime hours, which results in these funds coming directly from regions’ operating budgets. Overtime hours tend to increase during periods of peak utilization and can be closely correlated with sick time being recorded by regions – as sick time goes up and the available pool of employees diminishes, managers are forced to bring staff in / keep staff on in overtime situations. Not only is this financially problematic, the pressure on employees to maintain a high standard of care and service is taxed by continual overtime hours.

Overtime hours can also be associated with understaffed areas or professions / positions that have typically been hard to recruit or retain employees.

Overtime, like absenteeism and high levels of Workers’ Compensation Board (WCB) claims, may be indicative of a wide range of workplace problems. If problems are not being addressed one should not expect to see changes in the rate.

Several health care organizations currently do not use the Saskatchewan Association of Health Organizations (SAHO) payroll data system. Information related to these organizations are therefore not included in any reports generated by the system. Also, an individual employer is only able to obtain its own information from the SAHO payroll system. Thus, a regional health authority (RHA) is only able to obtain information related to its role as employer. These data do not include those of the other employers (affiliates or other health care organizations) operating within the geographic boundary of the region. The

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information provided by SAHO to Saskatchewan Health is aggregated at the geographic region level (i.e. not at the level of the employer), but includes all employers using the payroll system.

Please see "Appendix C – Definitions for HHR Indicators" for definitions of several key terms used in the Health Human Resource (HHR) indicators.

Targets / Benchmarks

As with many human resource indicators, benchmarks will have to be developed. In the interim, Regional Health Authorities can use the provincial rates or those of the best performers as benchmarks.

Contributing Factors

- In 24/7 work environments, management teams have to staff to the levels required to maintain the service.
- Rates of absenteeism.
- Availability of casual / replacement staff particularly in rural and remote settings.
- Collective agreements.
- Vacancies and hard to recruit professions.

Impact on Other Indicators

To be determined.

Potential for Action and Influence

More efficient utilization of staff mixes and staffing to appropriate levels to maintain services should reduce the reliance on overtime by the regions.

Long-term planning for educational seats and recruitment efforts should also serve to address this issue.

Data Tables

Please see the corresponding section in the document "Performance Management Accountability Indicators: Data Tables".

Technical Specification

Method of Calculation

Calculation

The total number of wage-driven-premium hours divided by the total number of FTEs, for a specified time period.

Separate calculations are done for each affiliation:

- Provider Group:
 - Canadian Union of Public Employees (CUPE)
[Sun Country, Regina Qu'Appelle, Sunrise, Prince Albert Parkland, Prairie North]
 - Service Employees International Union (SEIU)
[Five Hills, Cypress, Saskatoon, Heartland, Métis Addictions Council of Saskatchewan Incorporated (MACSI)]
 - Saskatchewan Government and General Employees Union (SGEU)
[Kelsey Trail, Mamawetan Churchill River, Keewatin Yatthé, Saskatchewan Cancer Agency]
- Health Sciences Association of Saskatchewan (HSAS)

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- Out-of-scope or Other (OOS/OTHER)
 - This category captures all non-unionized employees on the Saskatchewan Association of Health Organizations (SAHO) payroll system, not just management personnel.
- Saskatchewan Union of Nurses (SUN)
- Retail, Wholesale and Department Store Union (RWDSU)
[Regina Qu'Appelle (laundry services)]

Example: The Sun Valley Health Region reported 9,500 wage driven premium hours (overtime) worked by 1,100 FTEs for the 2nd Quarter of 2004/2005. Wage-driven premium hours per FTE equals 9,500 hours / 1,100 FTEs = 8.64 wage-driven premium hours per FTE in the three month period.

Numerator

The total number of wage-driven premium hours recorded in the Saskatchewan Association of Health Organizations (SAHO) payroll system for a specified time period.

Denominator

The total number of FTEs for a specified time period (please see the indicator “Distribution of health system full time equivalents (FTEs) by affiliation”).

Inclusions / Exclusions

Inclusions:

- FTEs represented by CUPE, SEIU, SGEU, HSAS, OOS/OTHER, SUN, and RWDSU.
- All time definers associated with Wage-Driven Premiums:
 - Overtime at 1.5, Overtime at 2.0, Overtime at 2.5, and Overtime at 3.0;
 - 3rd Weekend Worked Premium, Earned Time Off at 1.5, and Earned Time Off at 2.0;
 - Overtime on Statutory Holiday; and,
 - Call Back at 1.5 and Call Back at 2.0.

Exclusions:

- All time definers associated with Straight Time:
 - Worked Hours:
Regular Salaries, Orientation, Escort Duty (at 1.0, 1.5 and 2.0), Statutory Holiday Worked, Statutory Worked Time-in-Lieu (TIL) (pays at 1.0 and banks at 1.5), Statutory Worked TIL – Extended, Earned Time Off, Time in Lieu, Union Leave – Unbilled, Union Leave – Billed
 - Benefit Hours:
Vacation, Sick Leave, Family Leave, Medical Care Leave, Statutory Holiday Off, Compassionate Leave, Education Leave, Jury Leave, Pressing Necessity Leave, Leave of Absence – Other, and Workers' Compensation Board (WCB).

Data Source

Source

Wage-driven premiums data – “Overtime Trending Report”, SAHO payroll data system

FTEs – SAHO Statistical Reports (Paid FTE), SAHO payroll data system

Flow

Data from the SAHO payroll data system are available on a monthly basis to Saskatchewan Health and to all the regions that use the system. Approximately 97% of the public healthcare system FTEs are included, including the Saskatchewan Cancer Agency (SCA) and the Métis Addictions Council of Saskatchewan Incorporated (MACSI). Several health care organizations currently do not use the SAHO payroll system, and it is not expected that they will.

Availability

Quarterly. Data is available one month after the end of the quarter.

Limitations

To be determined.

References

- Canadian Council on Health Services Accreditation (CCHSA). 2002. "Quality of Worklife Indicators".
- Canadian Fitness and Lifestyle Research Institute. Research File ISSN 1188-6641.
- Canadian Labour and Business Centre. 2000. "Canadian Labour and Business Centre Leadership Survey: The Healthy Workplace".
- Canadian Labour and Business Centre. February 2002. "Full-time Equivalents and Financial Costs Associated with Absenteeism, Overtime, and Involuntary Part-time Employment in the Nursing Profession" (a report prepared for the Canadian Nursing Advisory Committee).
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- Statistics Canada. 2002. Labour Force Survey reported in *Canada's Health Care Providers, CIHI 2002*.
- Statistics Canada. 2002. "Work Absences". *The Daily – June 4, 2002*. (www.statcan.ca/Daily/English/020704/d020704h.htm)

Indicator Name Reference List

- **Percentage of overtime hours as a percentage of total paid hours**
 - Accountability Document (2003/2004)
- **Number of overtime hours per FTE by affiliation (by occupation when available)**
 - Accountability Document (2004/2005)
- **Number of overtime hours per FTE by affiliation**
 - Performance Management Dashboard (2004/2005)
- **Number of overtime hours per full time equivalent (FTE) by affiliation**
 - Performance Management Accountability Indicators (March 31, 2005 and earlier versions)
 - Accountability Document (2005/2006)
- **Number of wage-driven premium hours per FTE (overtime and other premiums) by affiliation**
 - Performance Management Dashboard (2005/2006)
- **Number of wage-driven premium hours (overtime and other premiums) per full time equivalent (FTE) by affiliation**
 - Accountability Document (2006/2007 onwards)
 - Performance Management Accountability Indicators (May 21, 2005 version onwards)
 - Performance Management Dashboard (2006/2007 onwards)

Distribution of health system full time equivalents (FTEs) by affiliation

Section: Organizational Effectiveness Indicators

Sub-Section: Health Human Resources

Category: Community and Health System Characteristics

Type of Measure: Input

Status: Active (since 2004/2005)
Quarterly Performance Management Report (“Dashboard”) measure (since 2004/2005)

Definition: The total number of full time equivalents (FTEs) by affiliation for a specified time period (e.g. fiscal year, quarter).

Normal Hours of Work, as defined below, is taken to mean a full time equivalent (FTE):

- SUN: “Normal hours of work shall be 80 hours in a biweekly period or 72 hours in the biweekly period in which an additional day off is scheduled,” or “64 hours in the biweekly period in which 2 additional days off are scheduled...”.
- CUPE: “Normal Hours of work for full time Employees shall be 112 hours in a three week period...”.
- SGEU: “Standard hours of work for full-time Employees shall be 112 hours in a 3 week period...”.
- SEIU: “Normal full time hours of work shall be 112 hours in a 3 week period...”.
- HSAS: “Hours of work shall not exceed 112 hours in a 3 week period...”.
- RWDSU: “Normal hours of work for full-time employees shall be 75 hours in the designated 2 week period...”.

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Interpretation

Rationale and Notes for Interpretation

This measure is more of a “snapshot” in time of the number of FTEs working in the health system than an indicator. It is used as the denominator for sick time, wage-driven premium time (overtime and other premiums) and other health human resource measures. One possible future measure might be to look at the percentage change in distribution over time (e.g. from one fiscal year to the next, from one quarter to the next, from corresponding quarters in different fiscal years).

Given the regions’ different expectations for scope and scale of health services with concomitant staffing ratios to accommodate the required service arrangements, care should be taken when comparing one region’s data to another.

Organizational redeployment and/or position reduction may change reported levels, but, as above, changes will be minimal and likely not impact front line care providers. Assume that most often, cuts are made to support / ancillary positions.

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Several health care organizations currently do not use the Saskatchewan Association of Health Organizations (SAHO) payroll data system. Information related to these organizations are therefore not included in any reports generated by the system. Also, an individual employer is only able to obtain its own information from the SAHO payroll system. Thus, a regional health authority (RHA) is only able to obtain information related to its role as employer. These data do not include those of the other employers (affiliates or other health care organizations) operating within the geographic boundary of the region. The information provided by SAHO to Saskatchewan Health is aggregated at the geographic region level (i.e. not at the level of the employer), but includes all employers using the payroll system.

Please see “Appendix C – Definitions for HHR Indicators” for definitions of several key terms used in the Health Human Resource (HHR) indicators.

Targets / Benchmarks

Not applicable.

Contributing Factors

- Regional staffing complement.
- Seasonal service changes.
- Funding.
- Regional / departmental service expectations and decisions.

Impact on Other Indicators

This indicator is used as the denominator for sick time, wage-driven premium time (overtime and other premiums), Workers’ Compensation Board (WCB) lost-time claims and days, and other health human resource measures.

Potential for Action and Influence

Given that regions are required to maintain service levels, there is little likelihood that there exists an opportunity to significantly change the reported levels. More appropriate utilization of staff may lower overtime and hence increase FTE distributions slightly.

Data Tables

Please see the corresponding section in the document “Performance Management Accountability Indicators: Data Tables”.

Technical Specification

Method of Calculation

Calculation

The total number of worked hours divided by the average number of hours worked by a full time equivalent, for a specified time period.

Separate calculations are done for each affiliation:

- Provider Group:
 - Canadian Union of Public Employees (CUPE)
[Sun Country, Regina Qu’Appelle, Sunrise, Prince Albert Parkland, Prairie North]

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- Service Employees International Union (SEIU)
[Five Hills, Cypress, Saskatoon, Heartland, Métis Addictions Council of Saskatchewan Incorporated (MACSI)]
- Saskatchewan Government and General Employees Union (SGEU)
[Kelsey Trail, Mamawetan Churchill River, Keewatin Yatthé, Saskatchewan Cancer Agency]
- Health Sciences Association of Saskatchewan (HSAS)
- Out-of-scope or Other (OOS/OTHER)
 - This category captures all non-unionized employees on the Saskatchewan Association of Health Organizations (SAHO) payroll system, not just management personnel.
- Saskatchewan Union of Nurses (SUN)
- Retail, Wholesale and Department Store Union (RWDSU)
[Regina Qu'Appelle (laundry services)]

Example: Sun Valley Health Region reported SUN employees worked a total of 123,721 hours for the 2nd Quarter (July, August and September) of 2004/2005, which translates into 250 FTEs. Average FTE hours of 494.88 hours for the quarter is approximately 164.96 hours per month per SUN FTE.

Numerator

The total number of worked hours recorded in the Saskatchewan Association of Health Organizations (SAHO) payroll system for Saskatchewan health sector employees for a specified time period.

Denominator

The average number of hours worked by a full time employee for a specified time period. This value varies due to the different number of days in a month but typically falls between 160 and 165 hours per month (the value is automatically calculated by the SAHO payroll system).

Inclusions / Exclusions

Inclusions:

- FTEs represented by CUPE, SEIU, SGEU, HSAS, OOS/OTHER, SUN, and RWDSU.
- All time definers associated with Worked Hours:
 - Regular Salaries, Orientation, Escort Duty (at 1.0, 1.5 and 2.0), Statutory Holiday Worked, Statutory Worked Time in Lieu (TIL) (pays at 1.0 and banks at 1.5), Statutory Worked TIL Extended, Earned Time Off, Time In Lieu, Union Leave – Unbilled, Union Leave – Billed.

Exclusions:

- All time definers associated with Benefit Hours:
 - Vacation, Sick Leave, Family Leave, Medical Care Leave, Statutory Holiday Off, Compassionate Leave, Education Leave, Jury Leave, Pressing Necessity Leave, Leave of Absence – Other, and Workers' Compensation Board (WCB).
- All time definers associated with Wage-Driven Premiums:
 - Overtime at 1.5, Overtime at 2.0, Overtime at 2.5, and Overtime at 3.0;
 - 3rd Weekend Worked Premium, Earned Time Off at 1.5, and Earned Time Off at 2.0;
 - Overtime on Statutory Holiday; and,
 - Call Back at 1.5 and Call Back at 2.0.

Data Source

Source

SAHO Statistical Reports (Paid FTE), SAHO payroll data system

Flow

Data from the SAHO payroll data system are available on a monthly basis to Saskatchewan Health and to all the regions that use the system. Approximately 97% of the public healthcare system FTEs are

Performance Management Accountability Indicators

included, including the Saskatchewan Cancer Agency (SCA) and the Métis Addictions Council of Saskatchewan Incorporated (MACSI). Several health care organizations currently do not use the SAHO payroll system, and it is not expected that they will.

Availability

Quarterly. Data is available one month after the end of the quarter.

Limitations

To be determined.

References

Saskatchewan Health. December 2005. "Working Together: Saskatchewan's Health Workforce Action Plan". (www.health.gov.sk.ca/hplan_health_workforce_action_plan.pdf)

Indicator Name Reference List

- **Quarterly reports on FTEs, number of employees, by region, employer, facility, department**
 - Accountability Document (2003/2004 [*Schedule 4: Program Specific Expectations and Indicators – Program Support Services section*])
- **Distribution of health system full time equivalents by affiliation (by occupation when available)**
 - Accountability Document (2004/2005)
 - Performance Management Dashboard (2004/2005)
- **Distribution of health system full time equivalents (FTEs) by affiliation**
 - Accountability Document (2005/2006 onwards)
 - Performance Management Accountability Indicators (all versions to date)
 - Performance Management Dashboard (2005/2006)

Number of lost-time WCB claims per 100 full time equivalents (FTEs)

Section: Organizational Effectiveness Indicators

Sub-Section: Health Human Resources

Category: Organizational Effectiveness

Type of Measure: Output

Status: Active (since 2004/2005)

Quarterly Performance Management Report ("Dashboard") measure (since 2004/2005)

Definition: The number of lost-time Workers' Compensation Board (WCB) claims expressed as a rate per 100 full time equivalents (FTEs) for a specified time period (e.g. fiscal year, quarter).

Template Content Last Changed: May 26, 2006

Interpretation

Rationale and Notes for Interpretation

In 2003, 7.2% of Saskatchewan's health sector workers had injuries that resulted in time away from work (up from 5.7% in 1999). Back and shoulder injuries were the most common. Employers are legally responsible for workplace safety, however, individuals must also do their part to keep themselves, their co-workers, and their patients safe.

All workplaces do not experience the same injury / illness rates. Average injury / illness rates differ in the various industry sectors as well as in same sector. Some sectors (such as health care) are more hazardous than others and therefore it seems natural that there will be higher injury rates in these. However, even among organizations engaged in similar businesses there is great variation in injury / illness rates. Even in higher risk business operations the most successful companies are achieving lost-time injury / illness rates under 0.5 per hundred employees, or six times better safety performance than the average. There are opportunities in all sectors for organizations to improve their performance.

In the private sector, businesses that have taken the initiative to prevent workplace injuries have one quarter or lower injury rates than competitors who have not. These organizations have implemented effective safety management systems not just because of concern for their employees, or for legal compliance, but because they understand that superior health and safety results leads to:

- lower costs;
- improved employee relations and employee trust;
- improved reliability and productivity;
- improved protection from business interruption;
- increased public trust and improved public image; and,
- increased organizational capability.

WCB suggests that this data is more suited to annual collection and explanation. The extremely volatile nature of injury makes quarterly or monthly comparisons difficult. Comparison between "frequency" (the number of claims made) and "severity" (the number of WCB days paid to employees) is not possible because they are concurrent but not fully interrelated events.

Several health care organizations currently do not use the Saskatchewan Association of Health Organizations (SAHO) payroll data system. Information related to these organizations are therefore not included in any reports generated by the system. Also, an individual employer is only able to obtain its own information from the SAHO payroll system. Thus, a regional health authority (RHA) is only able to obtain information related to its role as employer. These data do not include those of the other employers (affiliates or other health care organizations) operating within the geographic boundary of the region. The information provided by SAHO to Saskatchewan Health is aggregated at the geographic region level (i.e. not at the level of the employer), but includes all employers using the payroll system.

Please see "Appendix C – Definitions for HHR Indicators" for definitions of several key terms used in the Health Human Resource (HHR) indicators.

Targets / Benchmarks

The Saskatchewan Provincial Auditor's Report for 2004 recommends that Regional Health Authorities set a 3-year target for reducing work-related injuries (Provincial Auditor Saskatchewan, p.72).

As with many human resource indicators, benchmarks will have to be developed. In the interim, Regional Health Authorities can use the provincial rates or those of the best performers as benchmarks.

Contributing Factors

Workplace injuries in the health sector are influenced by a number of factors including the availability and uptake of occupational health and safety training, the existence of unrecognized risk, general employee knowledge and expectations regarding health and safety, and a lack of corporate commitment to have a

Performance Management Accountability Indicators

“culture of safety” in the workplace. Research shows that when workplace safety is articulated and reinforced as one of the core operational values, injury rates and consequently costs to the system are lower.

Impact on Other Indicators

To be determined.

Potential for Action and Influence

Most regions have programs targeted to get injured employees back to work following an injury.

The Saskatchewan Provincial Auditor recommends that regions commit at the board level to workplace safety by setting specific short-term targets, allocating resources, receiving regular reports and holding senior managers accountable for reducing injuries in the workplace.

Data Tables

Please see the corresponding section in the document “Performance Management Accountability Indicators: Data Tables”.

Technical Specification

Method of Calculation

Calculation

The number of lost-time WCB claims divided by the total number of paid FTEs, expressed as a rate per 100 FTEs for a specified time period (e.g. fiscal year, quarter).

Example: $(90 \text{ lost-time WCB claims} / 1,200 \text{ FTEs}) \times 100 \text{ FTEs} = 7.5 \text{ lost-time WCB claims per } 100 \text{ FTEs for region 'A'}$.

Numerator

The total number of accepted lost-time claims for a specified time period.

Denominator

The total number of paid FTEs for a specified time period (please see the indicator “Distribution of health system full time equivalents (FTEs) by affiliation”).

Inclusions / Exclusions

Inclusions:

- All accepted claims for WCB.

Exclusions:

- Claims that were not accepted for WCB as well as claims that predate the creation of the regions.

Data Source

Source

Lost-time claims data – Saskatchewan Workers’ Compensation Board (WCB)

FTEs – SAHO Statistical Reports (Paid FTE), Saskatchewan Association of Health Organizations (SAHO) payroll data system

Performance Management Accountability Indicators

Flow

Saskatchewan Workers' Compensation Board supplies lost-time claims data to SAHO who then provides the data to Saskatchewan Health with no data manipulation.

Data from the SAHO payroll data system are available on a monthly basis to Saskatchewan Health and to all the regions that use the system. Approximately 97% of the public healthcare system FTEs are included, including the Saskatchewan Cancer Agency (SCA) and the Métis Addictions Council of Saskatchewan Incorporated (MACSI). Several health care organizations currently do not use the SAHO payroll system, and it is not expected that they will.

Availability

Quarterly. Data is available one month after the end of the quarter.

Limitations

Because SAHO payroll data is used as the denominator for the lost-time calculation, results are not directly comparable with nationally and provincially published WCB lost-time data.

With quarterly reporting, frequency of lost-time claims should not be linked to severity (i.e. lost-time days).

References

- Canadian Task Force on Preventative Health Care. 2003. "Use of back belts to prevent occupational low-back pain: recommendation statement from the Canadian task force on preventative health care". *Canadian Medical Association Journal* 169(3): 213-214.
- Cole, D.C., M.V. Mondloch and S. Hogg-Johnson. 2002. "Listening to injured workers: how recovery expectations predict outcomes – a prospective study". *Canadian Medical Association Journal* 166(6): 749–754.
- Ontario Workplace Safety and Insurance Board and Canadian Manufacturers & Exporters – Ontario Division. 2001. Business Results Through Health and Safety Guidebook.
- Provincial Auditor Saskatchewan. 2004. "Report of the Provincial Auditor to the Legislative Assembly of Saskatchewan: 2004 Report – Volume 3".
- Saskatchewan Health. December 2005. "Working Together: Saskatchewan's Health Workforce Action Plan". (www.health.gov.sk.ca/hplan_health_workforce_action_plan.pdf)
- Saskatchewan Workers' Compensation Board. 2003. "Report to Stakeholders – 2003".
- Steenstra, I.A., J.R. Anema, P.M. Bongers, H.C.W. de Vet and W. van Mechelen. 2003. "Cost effectiveness of a multi-stage return to work program for workers on sick leave due to low back pain: design of a population based controlled trial". *BMC Musculoskeletal Disorders* 4: 26.

Indicator Name Reference List

- **Number of lost-time WCB claims per 100 FTEs**
 - Accountability Document (2004/2005)
- **Frequency: Number of lost-time claims per 100 FTEs**
 - Performance Management Dashboard (2004/2005)
- **Frequency: Number of lost-time WCB claims per 100 FTEs**
 - Performance Management Dashboard (2005/2006)
- **Number of lost-time WCB claims per 100 full time equivalents (FTEs)**
 - Accountability Document (2005/2006 onwards)
 - Performance Management Accountability Indicators (all versions to date)
 - Performance Management Dashboard (2006/2007 onwards)

Number of lost-time WCB days per 100 full time equivalents (FTEs)

Section:	Organizational Effectiveness Indicators
Sub-Section:	Health Human Resources
Category:	Organizational Effectiveness
Type of Measure:	Output
Status:	Active (since 2004/2005) Quarterly Performance Management Report ("Dashboard") measure (since 2004/2005)
Definition:	The number of lost-time Workers' Compensation Board (WCB) days expressed as a rate per 100 FTEs for a specified time period (e.g. fiscal year, quarter).

Template Content Last Changed: May 26, 2006

Interpretation

Rationale and Notes for Interpretation

In 2003, 7.2% of Saskatchewan's health sector workers had injuries that resulted in time away from work (up from 5.7% in 1999). Back and shoulder injuries are common. Employers are legally responsible for workplace safety, however individuals must also do their part to keep themselves, their co-workers, and their patients safe.

A lost-time WCB day is defined as eight (8) hours.

WCB suggests that this data is more suited to annual collection and explanation. The extremely volatile nature of injury makes quarterly or monthly comparisons difficult. Comparison between "frequency" (the number of claims made) and "severity" (the number of WCB days paid to employees) is not possible because they are concurrent but not fully interrelated events.

Several health care organizations currently do not use the Saskatchewan Association of Health Organizations (SAHO) payroll data system. Information related to these organizations are therefore not included in any reports generated by the system. Also, an individual employer is only able to obtain its own information from the SAHO payroll system. Thus, a regional health authority (RHA) is only able to obtain information related to its role as employer. These data do not include those of the other employers (affiliates or other health care organizations) operating within the geographic boundary of the region. The information provided by SAHO to Saskatchewan Health is aggregated at the geographic region level (i.e. not at the level of the employer), but includes all employers using the payroll system.

Please see "Appendix C – Definitions for HHR Indicators" for definitions of several key terms used in the Health Human Resource (HHR) indicators.

Targets / Benchmarks

As with many human resource indicators, benchmarks will have to be developed. In the interim, Regional Health Authorities can use the provincial rates or those of the best performers as benchmarks.

Contributing Factors

- Nature and severity of the injury.

Impact on Other Indicators

To be determined.

Potential for Action and Influence

To be determined.

Data Tables

Please see the corresponding section in the document “Performance Management Accountability Indicators: Data Tables”.

Technical Specification

Method of Calculation

Calculation

The number of lost-time WCB days divided by the total number of paid FTEs, expressed as a rate per 100 FTEs for a specified time period (e.g. fiscal year, quarter).

Example: $(400 \text{ lost-time claim days} / 1,500 \text{ FTEs}) \times 100 \text{ FTEs} = 26.6 \text{ lost-time claim days per 100 FTEs for region 'A'}$.

Numerator

The total number of lost-time WCB days, for a specified time period.

Denominator

Total number of paid FTEs, for a specified time period (please see the indicator “Distribution of health system full time equivalents (FTEs) by affiliation”).

Inclusions / Exclusions

Inclusions:

- All accepted claims for WCB.

Exclusions:

- Claims that were not accepted for WCB as well as claims that predate the creation of the regions.

Data Source

Source

Lost-time claims data – Saskatchewan Workers’ Compensation Board (WCB)

FTEs – SAHO Statistical Reports (Paid FTE), Saskatchewan Association of Health Organizations (SAHO) payroll data system

Flow

Saskatchewan Workers’ Compensation Board supplies lost-time claims data to SAHO who then provides the data to Saskatchewan Health with no data manipulation.

Data from the SAHO payroll data system are available on a monthly basis to Saskatchewan Health and to all the regions that use the system. Approximately 97% of the public healthcare system FTEs are included, including the Saskatchewan Cancer Agency (SCA) and the Métis Addictions Council of Saskatchewan Incorporated (MACSI). Several health care organizations currently do not use the SAHO payroll system, and it is not expected that they will.

Performance Management Accountability Indicators

Availability

Quarterly. Data is available one month after the end of the quarter.

Limitations

Because SAHO payroll data is used as the denominator for the lost-time calculation, results are not directly comparable with nationally and provincially published WCB lost-time data.

Severity of lost-time claims (i.e. lost-time days) should not be linked to frequency.

References

- Canadian Task Force on Preventative Health Care. 2003. "Use of back belts to prevent occupational low-back pain: recommendation statement from the Canadian task force on preventative health care". *Canadian Medical Association Journal* 169(3): 213-214.
- Cole, D.C., M.V. Mondloch and S. Hogg-Johnson. 2002. "Listening to injured workers: how recovery expectations predict outcomes – a prospective study". *Canadian Medical Association Journal* 166(6): 749–754.
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- Ontario Workplace Safety and Insurance Board and Canadian Manufacturers & Exporters – Ontario Division. 2001. Business Results Through Health and Safety Guidebook.
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- Saskatchewan Health. December 2005. "Working Together: Saskatchewan's Health Workforce Action Plan". (www.health.gov.sk.ca/hplan_health_workforce_action_plan.pdf)
- Saskatchewan Workers' Compensation Board. 2003. "Report to Stakeholders – 2003".
- Steenstra, I.A., J.R. Anema, P.M. Bongers, H.C.W. de Vet and W. van Mechelen. 2003. "Cost effectiveness of a multi-stage return to work program for workers on sick leave due to low back pain: design of a population based controlled trial". *BMC Musculoskeletal Disorders* 4: 26.
- Turner, J.A., G. Franklin, D. Fulton-Kehoe, K. Egan, T.M. Wickizer, J.F. Lymp, L. Sheppard and J.D. Kaufman. 2004. "Prediction of chronic disability in work-related musculoskeletal disorders: a prospective, population-based study". *BMC Musculoskeletal Disorders* 5: 14.

Indicator Name Reference List

- **Number of lost-time WCB days per 100 FTEs**
 - Accountability Document (2004/2005)
- **Severity: Number of lost-time days per 100 FTEs**
 - Performance Management Dashboard (2004/2005)
- **Severity: Number of lost-time WCB days per 100 FTEs**
 - Performance Management Dashboard (2005/2006)
- **Number of lost-time WCB days per 100 full time equivalents (FTEs)**
 - Accountability Document (2005/2006 onwards)
 - Performance Management Accountability Indicators (all versions to date)
 - Performance Management Dashboard (2006/2007 onwards)

Percentage of employees self-identifying as Aboriginal

Section:	Organizational Effectiveness Indicators
Sub-Section:	Health Human Resources
Category:	Organizational Effectiveness
Type of Measure:	Input
Status:	Active (2005/2006)
Definition:	The number of self-declared Aboriginal employees expressed as a percentage of the total number of all employees.

Template Content Last Changed: May 26, 2006

Interpretation

Rationale and Notes for Interpretation

One of the goals expressed in “The Saskatchewan Action Plan for Health Care” is “representative workplaces” – in which people of Aboriginal ancestry are proportionally represented in all areas and levels of Saskatchewan’s health sector. With growing emphasis on ensuring the labour force reflects population diversity, employers are seeking Aboriginal candidates to meet their workforce needs. With the expected sharp rise and the anticipated retirement of the “Baby Boomers”, this is an opportune time for Aboriginal people to take advantage of training and employment opportunities in both the public and private sector.

Saskatchewan has one of the fastest growing Aboriginal populations in Canada. According to the 2001 census, Aboriginal people – primarily Cree, Dene, and Métis – made up 14% of the population of Saskatchewan, and 40% of this sub-population was under 15 years of age.

In 2001, the unemployment rate of Aboriginal people was 12.5% (16.8% for the on-reserve First Nations population) compared to a provincial rate of 4.3%. Rates are for the population age 15 years and over.

Aboriginal people are also underrepresented in the health workplace. There is a huge potential to develop the Aboriginal workforce in Saskatchewan to address some of the current health provider shortage areas and those anticipated in the future.

Several health care organizations currently do not use the Saskatchewan Association of Health Organizations (SAHO) payroll data system. Information related to these organizations are therefore not included in any reports generated by the system. Also, an individual employer is only able to obtain its own information from the SAHO payroll system. Thus, a regional health authority (RHA) is only able to obtain information related to its role as employer. These data do not include those of the other employers (affiliates or other health care organizations) operating within the geographic boundary of the region. The information provided by SAHO to Saskatchewan Health is aggregated at the geographic region level (i.e. not at the level of the employer), but includes all employers using the payroll system.

Please see “Appendix C – Definitions for HHR Indicators” for definitions of several key terms used in the Health Human Resource (HHR) indicators.

Targets / Benchmarks

As with many health human resources (HHR) indicators, benchmarks based on representative workforces still have to be developed to facilitate the interpretation of these indicators.

Contributing Factors

There are several factors that influence the number of Aboriginal students choosing health professions:

- The entry requirements for training programs for health professionals.
- A large, and decreasing, proportion of the Aboriginal population do not complete high school. Currently 47.4% of the Aboriginal population age 15 years and over has a high school education or greater. The comparative provincial rate is 60.7%.
- Access to health care training programs locally may be an issue for students who would like to go on to post-secondary education.
- The number of Aboriginal health care professionals (i.e. health care professional role models for young Aboriginals).
- The majority of Aboriginal people currently working in health are in entry level, lower paying jobs. This may represent an opportunity to career ladder people already employed in the system.

Impact on Other Indicators

To be determined.

Potential for Action and Influence

Relevant provincial and Regional Health Authority (RHA) initiatives and best practices:

- Northern Access program;
- Nursing Education Program offered in Prince Albert;
- Licensed Practical Nurse (LPN) programs offered at regional colleges; and,
- an environmental health science program offered at the First Nations University of Canada.

Data Tables

Please see the corresponding section in the document "Performance Management Accountability Indicators: Data Tables".

Technical Specification

Method of Calculation

Calculation

The number of self-declared Aboriginal employees divided by the total number of all employees, expressed as a percentage.

Example: There are 147 employees in Sun Shine RHA self-declaring as Aboriginal, out of a total of 1,800 permanent and temporary full time, part time and casual employees. The percentage self-declared as Aboriginal is $(147/1,800) \times 100\% = 8.2\%$.

Numerator

The number of self-declared Aboriginal employees, including those working in permanent and temporary full time, part time and casual positions.

Denominator

The total number of employees, including those working in permanent and temporary full time, part time and casual positions.

Inclusions / Exclusions

Inclusions:

- All Saskatchewan public sector health employees.

Exclusions:

- Not applicable.

Data Source

Source

Numerator – Regional Health Authority (RHA) / Saskatchewan Cancer Agency (SCA) surveying their employees to track the number of self-declared Aboriginal employees.

Denominator – Saskatchewan Association of Health Organization (SAHO) payroll system data.

Flow

Planning is underway for the SAHO Internet Personnel Front End (IPFE): a computer-based interface for all health sector employees. In addition to managing personal information and payroll data, the IPFE will have a “Self Declared as Aboriginal” check box to complete. While individuals will still have the opportunity to not answer the question, it is hoped that the standardized single collection point will be a reliability improvement over the current collection of ad hoc data.

Data from the SAHO payroll data system are available on a monthly basis to Saskatchewan Health and to all the regions that use the system. Approximately 97% of the public healthcare system FTEs are included, including the Saskatchewan Cancer Agency (SCA) and the Métis Addictions Council of Saskatchewan Incorporated (MACSI). Several health care organizations currently do not use the SAHO payroll system, and it is not expected that they will.

Availability

The most recent data available is from 2003/2004, and was also reported in Saskatchewan Health’s “2005-2006 Provincial Budget Performance Plan” and “2006-2007 Provincial Budget Performance Plan”.

Limitations

Some health regions have low Aboriginal populations overall. Thus, in order for a representative workforce indicator to be relevant to a health region, it should be compared to the region’s Aboriginal population. For example, the proportion of Aboriginal employees could be expressed in tabular form, together with information on the percentage of an RHA’s population that is Aboriginal / non-Aboriginal. Another possibility could be to look at those age 20 to 64 years only.

Surveying employers about their Aboriginal employees is a challenge: where the data are not collected routinely, response rates to equity surveys are historically low.

References

- Saskatchewan Health. 2006. “2006-2007 Provincial Budget Performance Plan – Saskatchewan Health”.
- Saskatchewan Health. December 2005. “Working Together: Saskatchewan’s Health Workforce Action Plan”. (www.health.gov.sk.ca/hplan_health_workforce_action_plan.pdf)
- Saskatchewan Health. 2005. “2005-2006 Provincial Budget Performance Plan – Saskatchewan Health”.
- Saskatchewan Health. December 2001. “The Action Plan for Saskatchewan Health Care”.
- Statistics Canada. 2001 Census.

Indicator Name Reference List

- **Percentage of self identified aboriginal employees**
 - Accountability Document (2003/2004 and 2004/2005)
 - Performance Management Accountability Indicators (February 16 and 18, 2005 versions)
- **Percentage of employees self-identifying as aboriginal**
 - Accountability Document (2005/2006)
 - Performance Management Accountability Indicators (March 16, March 31, and May 21, 2005 versions)
- **Percentage of employees self-identifying as Aboriginal**
 - Accountability Document (2006/2007 onwards)
 - Performance Management Accountability Indicators (April 21, 2006 version onwards)

Worked hours as a percentage of total hours by affiliation

Section: Organizational Effectiveness Indicators

Sub-Section: Health Human Resources

Category: Organizational Effectiveness

Type of Measure: Efficiency

Status: Active (since 2004/2005)

Definition: The total number of hours worked expressed as a percentage of total hours (straight time hours plus wage-driven premium hours) in a specified time period.

Template Content Last Changed: May 26, 2006

Interpretation

Rationale and Notes for Interpretation

This indicator highlights unit producing hours worked within a region by affiliation in comparison to the total hours for a region, and gives health planners / Chief Executive Officers (CEOs) / Boards a more accurate view of the actual numbers of service hours currently being utilized within the system.

Several health care organizations currently do not use the Saskatchewan Association of Health Organizations (SAHO) payroll data system. Information related to these organizations are therefore not included in any reports generated by the system. Also, an individual employer is only able to obtain its own information from the SAHO payroll system. Thus, a regional health authority (RHA) is only able to obtain information related to its role as employer. These data do not include those of the other employers (affiliates or other health care organizations) operating within the geographic boundary of the region. The information provided by SAHO to Saskatchewan Health is aggregated at the geographic region level (i.e. not at the level of the employer), but includes all employers using the payroll system.

Please see "Appendix C – Definitions for HHR Indicators" for definitions of several key terms used in the Health Human Resource (HHR) indicators.

Targets / Benchmarks

Given a current lack of national or provincial benchmarks it is difficult to establish what an acceptable or normal range of worked hours to total hours would be. In the event of comparison, the comparator should be one of a similar workforce in unionized environments.

In the interim, Regional Health Authorities can use the provincial rates or those of the best performers as benchmarks.

Contributing Factors

- As the workforce ages the physical demands of the workplace take more of a toll on many groups of health care workers.
- Family pressures and personal work ethic also influence the indicator.
- Collective agreement differences will impact the number of hours worked in a region on a monthly basis as well as the extent of paid benefit hours accessible by employees.
- Collective agreement provisions will have an impact (e.g. recent additions of family leave provisions).

Impact on Other Indicators

Lower percentages of worked hours being reported will likely correlate closely with higher utilization of Benefit Hours and Wage Driven Premium Hours. In addition, these indicators are likely to be seen as precursor warnings to increases in the turnover indicator.

Potential for Action and Influence

To be determined.

Data Tables

Please see the corresponding section in the document "Performance Management Accountability Indicators: Data Tables".

Technical Specification

Method of Calculation

Calculation

The total number of worked hours divided by total hours, expressed as a percentage for a specified time period.

Separate calculations are done for each affiliation:

- Provider Group:
 - Canadian Union of Public Employees (CUPE)
[Sun Country, Regina Qu'Appelle, Sunrise, Prince Albert Parkland, Prairie North]
 - Service Employees International Union (SEIU)
[Five Hills, Cypress, Saskatoon, Heartland, Métis Addictions Council of Saskatchewan Incorporated (MACSI)]
 - Saskatchewan Government and General Employees Union (SGEU)
[Kelsey Trail, Mamawetan Churchill River, Keewatin Yatthé, Saskatchewan Cancer Agency]
- Health Sciences Association of Saskatchewan (HSAS)
- Out-of-scope or Other (OOS/OTHER)
 - This category captures all non-unionized employees on the Saskatchewan Association of Health Organizations (SAHO) payroll system, not just management personnel.

Performance Management Accountability Indicators

- Saskatchewan Union of Nurses (SUN)
- Retail, Wholesale and Department Store Union (RWDSU)
[Regina Qu'Appelle (laundry services)]

Example: The Sun Valley Health Region reports 97,500 Worked Hours worked by CUPE employees for the 2nd Quarter of 2004/2005 out of 120,000 Total Hours; $97,500/120,000 * 100 = 81.25\%$.

Numerator

The total number of Worked Hours recorded in the Saskatchewan Association of Health Organizations (SAHO) payroll system for a specified time period.

Denominator

The total number of hours, which equals the sum of Straight Time Hours and Wage-Driven Premium Hours, for a specified time period.

Inclusions / Exclusions

Inclusions:

- FTEs represented by CUPE, SEIU, SGEU, HSAS, OOS/OTHER, SUN, and RWDSU.
 - The numerator and denominator include all time definers associated with Worked Hours:
 - Regular Salaries, Orientation, Escort Duty (at 1.0, 1.5 and 2.0), Statutory Holiday Worked, Statutory Worked Time-in-Lieu (TIL) (pays at 1.0 and banks at 1.5), Statutory Worked TIL – Extended, Earned Time Off, Time in Lieu, Union Leave – Unbilled, Union Leave – Billed;
 - The denominator also includes all time definers associated with Benefit Hours:
 - Vacation, Sick Leave, Family Leave, Medical Care Leave, Statutory Holiday Off, Compassionate Leave, Education Leave, Jury Leave, Pressing Necessity Leave, Leave of Absence – Other, and Workers' Compensation Board (WCB).
- and all time definers associated with Wage-Driven Premiums:
- Overtime at 1.5, Overtime at 2.0, Overtime at 2.5, and Overtime at 3.0;
 - 3rd Weekend Worked Premium, Earned Time Off at 1.5, and Earned Time Off at 2.0;
 - Overtime on Statutory Holiday; and,
 - Call Back at 1.5 and Call Back at 2.0.

Exclusions:

- None.

Data Source

Source

“Human Resource Costing Report”, SAHO payroll data system

Flow

Data from the SAHO payroll data system are available on a monthly basis to Saskatchewan Health and to all the regions that use the system. Approximately 97% of the public healthcare system FTEs are included, including the Saskatchewan Cancer Agency (SCA) and the Métis Addictions Council of Saskatchewan Incorporated (MACSI). Several health care organizations currently do not use the SAHO payroll system, and it is not expected that they will.

Availability

Quarterly. Data is available one month after the end of the quarter.

Limitations

To be determined.

References

- Canadian Council on Health Services Accreditation (CCHSA). 2002. "Quality of Worklife Indicators".
- Canadian Fitness and Lifestyle Research Institute. Research File ISSN 1188-6641.
- Canadian Labour and Business Centre. 2000. "Canadian Labour and Business Centre Leadership Survey: The Healthy Workplace".
- Canadian Labour and Business Centre. February 2002. "Full-time Equivalents and Financial Costs Associated with Absenteeism, Overtime, and Involuntary Part-time Employment in the Nursing Profession" (a report prepared for the Canadian Nursing Advisory Committee).
- Fitz-enz, J. and B. Davison. 1995. How To Measure Human Resources Management, Third Edition. New York: McGraw Hill.
- Lowe, Graham. June 2002. "CNA Quality of Worklife Indicators Workshop Report". Canadian Nurses Association (CNA).
- Saskatchewan Health. December 2005. "Working Together: Saskatchewan's Health Workforce Action Plan". (www.health.gov.sk.ca/hplan_health_workforce_action_plan.pdf)
- Statistics Canada. 2002. Labour Force Survey reported in *Canada's Health Care Providers, CIHI 2002*.
- Statistics Canada. 2002. "Work Absences". *The Daily – June 4, 2002*. (www.statcan.ca/Daily/English/020704/d020704h.htm)

Indicator Name Reference List

- **Worked hours as a percentage of paid hours**
 - Accountability Document (2003/2004 and 2004/2005)
 - Performance Management Accountability Indicators (February 16 and 18, 2005 versions)
- **Worked hours as a percentage of paid hours by affiliation**
 - Accountability Document (2005/2006)
 - Performance Management Accountability Indicators (March 16, March 31, and May 21, 2005 versions)
- **Worked hours as a percentage of total hours by affiliation**
 - Accountability Document (2006/2007 onwards)
 - Performance Management Accountability Indicators (April 21, 2006 version onwards)

FINANCIAL

Working capital ratio (current ratio)

Section: Organizational Effectiveness Indicators

Sub-Section: Financial

Category: Organizational Effectiveness

Type of Measure: Financial

Performance Management Accountability Indicators

Status: Active (since 2004/2005)
Working capital ratio: Quarterly Performance Management Report (“Dashboard”) measure (2004/2005 only)

Definition: Working capital ratio is defined as current assets divided by current liabilities, and can be interpreted as the number of times a region’s short-term obligations can be paid using the region’s short-term assets.

Template Content Last Changed: May 26, 2006

Interpretation

Rationale and Notes for Interpretation

Working Capital Ratio (Current Ratio) is a measure of short-term liquidity risk. It is intended to indicate the ability of the region to meet its current financial obligations through management of current assets and current liabilities. A ratio of one or higher indicates that the region has enough current assets to pay off its current liabilities over the course of a year. A ratio of less than one calls into question the region’s liquidity and may impair the region’s ability to maintain programs and services. Very high values for current ratio could indicate investment in non-productive assets such as excess of cash or inventory. Values much higher or lower than one and significant changes from previous years should be investigated.

Targets / Benchmarks

To be determined.

Contributing Factors

- Some regions have accumulated significant debt over time and do not have a repayment plan.
- The provincial Working Capital Ratio (Current Ratio) has dropped from 1.3 in 1996 to 0.7 in 2005.
- Regions are using operating dollars to buy capital equipment, over and above their capital funding, as well as setting up replacement reserves that are required for Canada Mortgage and Housing Corporation (CMHC) subsidized mortgages.

Impact on Other Indicators

The Working Capital Ratio (Current Ratio) and the Working Capital Days are directly linked and will impact each other. Improvement or decline will occur simultaneously in both measures.

Potential for Action and Influence

Regions with an unfavourable Working Capital Ratio (Current Ratio) or Working Capital Days need to work out and implement a repayment strategy for short-term debt and stop the practice of using operating dollars for capital acquisitions.

Data Tables

Please see the corresponding section in the document “Performance Management Accountability Indicators: Data Tables”.

Technical Specification

Method of Calculation

Calculation

Current assets divided by current liabilities.

Numerator

Current assets.

Denominator

Current liabilities.

Inclusions / Exclusions

Inclusions:

- Current Assets: Cash, Accounts Receivable, Inventory, Prepaid Expenses, plus any other assets or property on the balance sheet that can be easily converted to cash within a year.
- Current Liabilities: Bank Indebtedness, Accounts Payable, Vacation Payable, the Current Portion of Long-Term Debt, plus any other money owed by a Region that must be paid within one year.

Exclusions:

- Assets: Long-Term Investments, Capital Assets, and other assets or property that cannot easily be converted to cash within a year.
- Liabilities: Long-Term Debt and other indebtedness not due within a year.

Source

A region's balance sheet prepared on a quarterly basis. (NOTE: In the case of the fourth quarter, actual audited financial statement information is used.)

Flow

Regions are required to submit an electronic version of their balance sheet to Saskatchewan Health at the end of each quarter.

Availability

Within 30 days of the end of the quarter.

Limitations

Working capital days does not seem to be described in the literature. A popular version of a liquidity indicator seems to be Working Capital to Revenue. A more realistic ratio is the Quick Ratio that precludes inventory in its calculation citing that conversion to actual cash is what should be measured. Furthermore the omission of deferred revenue on the liability side of the equation makes sense, as this number is not a true liability that would require settlement with cash.

References

- Canadian Institute for Health Information (CIHI). 2006. "Guidelines for Management Information Systems in Canadian Health Service Organizations – 2006 (MIS Guidelines 2006)" (Financial Indicators section). Ottawa, Ontario: CIHI.
- Canadian Institute for Health Information (CIHI). 2003. "Moving Toward the Reporting of Hospital Financial Performance Indicators 1999-2000 to 2001-2002". Ottawa, Ontario: CIHI.
- Ontario Hospital Association and the Government of Ontario. September 2005. "Hospital Report 2005: Acute Care".

Performance Management Accountability Indicators

Ontario Hospital Association and the Government of Ontario. January 2004. "Hospital Report 2003: Acute Care".

Ontario Joint Policy and Planning Committee (JPPC). August 2005. "A Primer on Performance Indicators and Corridors for Use in the 2005/06 and 2006/07 Hospital Accountability Agreement". Toronto, Ontario: JPPC.

Provincial Auditor Saskatchewan. 2005. "Report of the Provincial Auditor to the Legislative Assembly of Saskatchewan: 2005 Report – Volume 3" (Section 2B – Financial sustainability of the health system).

Indicator Name Reference List

- **Working capital ratio**
 - Accountability Document (2004/2005)
- **Working capital ratio**
Number of days able to operate with working capital
 - Performance Management Dashboard (2004/2005)
- **Working capital ratio, and number of days able to operate with working capital**
 - Accountability Document (2005/2006)
 - Performance Management Accountability Indicators (May 21, 2005 and earlier versions)
- **Working capital ratio (current ratio)**
 - Accountability Document (2006/2007 onwards)
 - Performance Management Accountability Indicators (April 21, 2006 version onwards)

Number of days able to operate with working capital

Section: Organizational Effectiveness Indicators

Sub-Section: Financial

Category: Organizational Effectiveness

Type of Measure: Financial

Status: Active (since 2004/2005)

Number of days able to operate with working capital: Quarterly Performance Management Report ("Dashboard") measure (since 2004/2005)

Definition: Number of days able to operate with working capital is determined by dividing working capital (current assets plus long-term investments, less current liabilities, externally restricted funds and internally restricted funds) by daily expenses (total Expenses divided by the number of days year-to-date).

Template Content Last Changed: May 26, 2006

Interpretation

Rationale and Notes for Interpretation

Number of days able to operate with working capital is a measure of liquidity, and represents the number of days a region could continue to operate without additional revenue.

Targets / Benchmarks

To be determined.

Contributing Factors

- Some regions have accumulated significant debt over time and do not have a repayment plan.
- Regions are using operating dollars to buy capital equipment, over and above their capital funding, as well as setting up replacement reserves that are required for Canada Mortgage and Housing Corporation (CMHC) subsidized mortgages.

Impact on Other Indicators

The Working Capital Ratio (Current Ratio) and the Working Capital Days are directly linked and will impact each other. Improvement or decline will occur simultaneously in both measures.

Potential for Action and Influence

Regions with an unfavourable Working Capital Ratio (Current Ratio) or Working Capital Days need to work out and implement a repayment strategy for short-term debt and stop the practice of using operating dollars for capital acquisitions.

Data Tables

Please see the corresponding section in the document "Performance Management Accountability Indicators: Data Tables".

Technical Specification

Method of Calculation

Calculation

Working capital (current assets plus long-term investments, less current liabilities, externally restricted funds and internally restricted funds) divided by daily expenses.

Numerator

Working capital (current assets plus long-term investments, less current liabilities, externally restricted funds and internally restricted funds).

Denominator

Total Expenses divided by the number of days year-to-date.

Inclusions / Exclusions

Inclusions:

- Current Assets: Cash, Accounts Receivable, Inventory, Prepaid Expenses, plus any other assets or property on the balance sheet that can be easily converted to cash within a year.
- Long-Term Investments.
- Current Liabilities: Bank Indebtedness, Accounts Payable, Vacation Payable, the Current Portion of Long-Term Debt, plus any other money owed by a Region that must be paid within one year.
- Externally and Internally Restricted Fund Balances.

Performance Management Accountability Indicators

Exclusions:

- Assets: Capital Assets, and other assets or property that cannot easily be converted to cash within a year.
- Liabilities: Long-Term Debt and other indebtedness not due within a year.

Source

A region's balance sheet prepared on a quarterly basis. (NOTE: In the case of the fourth quarter, actual audited financial statement information is used.)

Flow

Regions are required to submit an electronic version of their balance sheet to Saskatchewan Health at the end of each quarter.

Availability

Within 30 days of the end of the quarter.

Limitations

Working capital days does not seem to be described in the literature. A popular version of a liquidity indicator seems to be Working Capital to Revenue. A more realistic ratio is the Quick Ratio that precludes inventory in its calculation citing that conversion to actual cash is what should be measured. Furthermore the omission of deferred revenue on the liability side of the equation makes sense, as this number is not a true liability that would require settlement with cash.

References

- Canadian Institute for Health Information (CIHI). 2006. "Guidelines for Management Information Systems in Canadian Health Service Organizations – 2006 (MIS Guidelines 2006)" (Financial Indicators section). Ottawa, Ontario: CIHI.
- Canadian Institute for Health Information (CIHI). 2003. "Moving Toward the Reporting of Hospital Financial Performance Indicators 1999-2000 to 2001-2002". Ottawa, Ontario: CIHI.
- Ontario Hospital Association and the Government of Ontario. September 2005. "Hospital Report 2005: Acute Care".
- Ontario Hospital Association and the Government of Ontario. January 2004. "Hospital Report 2003: Acute Care".
- Ontario Joint Policy and Planning Committee (JPPC). August 2005. "A Primer on Performance Indicators and Corridors for Use in the 2005/06 and 2006/07 Hospital Accountability Agreement". Toronto, Ontario: JPPC.
- Provincial Auditor Saskatchewan. 2005. "Report of the Provincial Auditor to the Legislative Assembly of Saskatchewan: 2005 Report – Volume 3" (Section 2B – Financial sustainability of the health system).

Indicator Name Reference List

- **Working capital ratio**
 - Accountability Document (2004/2005)
- **Working capital ratio**
Number of days able to operate with working capital
 - Performance Management Dashboard (2004/2005)
- **Working capital ratio, and number of days able to operate with working capital**
 - Accountability Document (2005/2006)
 - Performance Management Accountability Indicators (May 21, 2005 and earlier versions)

- **Number of days able to operate with working capital**
 - Accountability Document (2006/2007 onwards)
 - Performance Management Accountability Indicators (April 21, 2006 version onwards)
 - Performance Management Dashboard (2005/2006 onwards)

Surplus (deficit), and surplus (deficit) as a percentage of actual operating expenditures

Section: Organizational Effectiveness Indicators

Sub-Section: Financial

Category: Organizational Effectiveness

Type of Measure: Financial

Status: Active (since 2004/2005)

Surplus (deficit): Quarterly Performance Management Report (“Dashboard”) measure (since 2005/2006)

Surplus (deficit) as a percentage of actual operating expenditures: Quarterly Performance Management Report (“Dashboard”) measure (since 2004/2005)

Definition: A region’s surplus or deficit expressed as a dollar value and as a percentage of actual operating expenditures. A surplus is defined as an excess of revenues over expenditures, and a deficit is the reverse, an excess of expenditures over revenues.

Template Content Last Changed: May 26, 2006

Interpretation

Rationale and Notes for Interpretation

Surplus (deficit) as a percentage of actual operating expenditures is a measure of financial viability and measures the relative financial health of a region. Financial viability refers to a region’s ability to fund growth, new programs, working capital needs and new equipment through an excess of revenues over expenses. Financial viability is the net result of a large number of its managerial policies and decisions. For example, a high percentage deficit could be due to poor cost control and indicate a need for greater efficiency in operations or it might be due to a heavier use of debt financing.

In the context of not-for-profit regions, a high percentage surplus is not necessarily a good thing. A relatively high percentage surplus might indicate that a region is not spending sufficiently and possibly failing to meet community needs. Thus the optimal value is one that is sufficiently high to provide a region with the funds to maintain and improve the quality of care, but not so high as to indicate the region is not fulfilling the mandate of a not-for-profit region.

A small positive value is probably no cause for concern, but negative values or large positive values, and significant changes from previous years should be investigated.

Targets / Benchmarks

A balanced budget is the prerequisite for yearly operations.

Contributing Factors

- A satisfactory result for this performance measure will depend on excellent expenditure and revenue management. A region's financial viability is the net result of its managerial policies and decisions. Their effective use of human, physical and financial resources will produce the desired outcomes.

Impact on Other Indicators

Working capital indicators will be directly affected by the surplus/deficit results of a region's operation.

Potential for Action and Influence

Through regular monitoring of results, regions that deviate significantly from the norm need to implement an action plan to correct their future operations.

Data Tables

Please see the corresponding section in the document "Performance Management Accountability Indicators: Data Tables".

Technical Specification

Method of Calculation

Calculation

Total operating revenues less total operating expenditures, divided by total operating expenditures, expressed as a percentage.

Numerator

Total operating revenues less total operating expenditures.

Denominator

Total operating expenditures.

Inclusions / Exclusions

Inclusions:

- All operating revenues
- All operating expenditures

Exclusions:

- Revenues and expenses associated with Capital Assets
- Revenues and expenses associated with Community Trust Funds

Source

A region's income statement prepared on a quarterly basis. (NOTE: In the case of the fourth quarter, actual audited financial statement information is used.)

Flow

Regions are required to submit an electronic version of their income statement to Saskatchewan Health at the end of each quarter.

Availability

Within 30 days of the end of the quarter.

Limitations

Surplus/deficit forecast accuracy is dependent on the forecast models used by the region and the information available concerning future operations particularly revenue streams from Saskatchewan Health.

References

- Canadian Institute for Health Information (CIHI). 2006. "Guidelines for Management Information Systems in Canadian Health Service Organizations – 2006 (MIS Guidelines 2006)" (Financial Indicators section). Ottawa, Ontario: CIHI.
- Canadian Institute for Health Information (CIHI). 2003. "Moving Toward the Reporting of Hospital Financial Performance Indicators 1999-2000 to 2001-2002". Ottawa, Ontario: CIHI.
- Ontario Hospital Association and the Government of Ontario. September 2005. "Hospital Report 2005: Acute Care".
- Ontario Hospital Association and the Government of Ontario. January 2004. "Hospital Report 2003: Acute Care".
- Ontario Joint Policy and Planning Committee (JPPC). August 2005. "A Primer on Performance Indicators and Corridors for Use in the 2005/06 and 2006/07 Hospital Accountability Agreement". Toronto, Ontario: JPPC.
- Provincial Auditor Saskatchewan. 2005. "Report of the Provincial Auditor to the Legislative Assembly of Saskatchewan: 2005 Report – Volume 3" (Section 2B – Financial sustainability of the health system).

Indicator Name Reference List

- **Quarterly reporting of outstanding debt levels**
 - Accountability Document (2003/2004)
- **Surplus/deficit as a percentage of actual expenditure**
 - Accountability Document (2004/2005 and 2005/2006)
 - Performance Management Accountability Indicators (May 21, 2005 and earlier versions)
 - Performance Management Dashboard (2004/2005)
- **Surplus (deficit), and surplus (deficit) as a percentage of actual operating expenditures**
 - Accountability Document (2006/2007 onwards)
 - Performance Management Accountability Indicators (April 21, 2006 version onwards)
 - Performance Management Dashboard (2005/2006 onwards)

COMMUNICATIONS AND ISSUES MANAGEMENT

Key activities undertaken by RHA to address public confidence reported

Section: Organizational Effectiveness Indicators

Sub-Section: Communications and Issues Management

Category: Organizational Effectiveness

Type of Measure: Structure / Process

Status: Active (since 2005/2006)

Quarterly Performance Management Report (“Dashboard”) measure (since 2005/2006)

[Originally planned to be Active for 2004/2005, and included as a Quarterly Performance Management Report (“Dashboard”) measure starting the third quarter of 2004/2005.]

Definition: This measure indicates whether significant activity is taking place to address health region situations that affect public confidence (in current health services and the future direction of the health region or the health system), or to influence public opinion. It is a “yes/no” response to the statement “The Regional Health Authority (RHA) undertook significant activities this quarter to address public confidence”. This would include public confidence in the health system generally, and in region-delivered services specifically (RHA-wide activities, not solely communications unit activities).

“Significant activities” would be any activities that take up a significant amount of staff time, and are clearly aimed at affecting the perceptions by members of the public of the health region or the health system. A planning process can be included as an activity.

Note: Health regions are expected to undertake a significant level of activity over the fiscal year. These activities are not expected to necessarily be reflected in activity during each quarter (it is okay to answer “no” in a given quarter, if health region priorities were elsewhere during that quarter).

Template Content Last Changed: April 21, 2006

Interpretation

Rationale and Notes for Interpretation

As part of balanced scorecard reporting, Regional Health Authorities will report on their progress toward improving public confidence in the health care system.

One of the measures of public confidence will be public opinion polling, in comparison to a baseline poll in 2003. Except in years when additional research funding is available, polling will be conducted on a provincial basis, with no statistically valid breakdowns of results by health region.

Performance Management Accountability Indicators

The survey questions will include the following:

- When I get health care, I am treated with respect.
- Overall, I can get the kind of health care I need without difficulty.
- My local health region seems to be able to attract and keep the people they need to provide services.
- When I am in a health care office or facility, things seem to be well run.
- Generally, I have confidence in the direction health care is going in my health region.

These five questions relate to services that are provided by RHAs. It is recognized that RHAs do not have control over all factors that would affect the public response to a particular issue.

In this measure, RHAs indicate their level of effort on improving public confidence in each quarter with a “yes/no” answer. RHAs can also describe three to five key activities that support increased public confidence. Many activities are undertaken on an ongoing basis in the region to address public confidence, including specific targeted activities, and those that as a spin off will serve to enhance public confidence in the system.

For the first year, the following criteria should be used for identifying and reporting dashboard indicators.

- 1) Public confidence dashboard indicators should indicate whether activity (including planning) is taking place to address public concerns about the delivery of health care.
- 2) The accompanying description should briefly describe the issue and include specific timelines and deliverables for activities that attempt to influence public opinion. This may include any programming, policy or procedural changes being implemented, and the extent to which communications planning and public relations activities are being employed to address the issue.
- 3) Issues management, organizational communications and public relations methodologies should be mentioned in the identification of issues and the development of plans to address them, but detailed descriptions are not needed. It is acceptable to undertake communications activities without a formal plan, but when one has been created it should be noted.

Description examples:

Wait times: The health region addressed concerns over surgical and diagnostic wait times by adding 2 new surgical staff, extending the hours of diagnostic equipment use by 20%, freeing up 8 hospital beds and establishing a procedure to provide surgery and diagnostic patients with an update on their status. A communications strategy was developed in Q1 2005-06 to inform employees and the public about these improvements. Implementation planned beginning in Q3 to the end of next year.

Long-term care (LTC) service: The health region conducted a quality-of-life study, interviewing 45% of LTC residents. A communications plan was developed in Q1 to report results to the participants, staff, media and the public through a variety of information sessions and a news release.

Issues and expectations for future health services: In Q1, the health region conducted 10 discussion sessions with staff, the public and business leaders. A communications strategy was developed in Q1 to ensure consistent messaging, and to map out follow-up communications about the process. In addition to advertising and news releases about the sessions, a follow-up Report to the Community is planned for Q2.

Public opinion survey conducted: The region conducted a survey this quarter to aid a strategic planning process next quarter. The survey is designed to identify areas of concern with the delivery and availability of health services and long-term care.

Communications strategy developed for wait times: A communications strategy was developed this quarter to address wait time concerns. Management signed off on the strategy, with implementation set for Q3.

Targets / Benchmarks

RHA acts to maintain and increase public confidence in RHA delivered services. Significant activity is expected annually, but is not necessarily reflected each quarter.

Contributing Factors

To be determined.

Impact on Other Indicators

To be determined.

Potential for Action and Influence

To be determined.

Data Tables

Please see the corresponding section in the document "Performance Management Accountability Indicators: Data Tables".

Technical Specification

Method of Calculation

Calculation

Not applicable.

Numerator

Not applicable.

Denominator

Not applicable.

Inclusions / Exclusions

Not applicable.

Data Source

Source

Individual RHAs.

Flow

Each RHA provides to Communications Branch, Saskatchewan Health a list of activities that took place to address public concerns.

Availability

Quarterly. Data is available within one month of the end of the quarter.

Limitations

To be determined.

References

None.

Indicator Name Reference List

- **Public confidence**
 - Accountability Document (2003/2004)
- **Key activities undertaken to address public confidence indicator results (survey of 2003)**
 - Accountability Document (2004/2005)
- **Key activities undertaken by RHAs to address public confidence indicator results (survey of 2003)**
 - Performance Management Dashboard (2004/2005)
- **Key activities undertaken to address public confidence indicator results**
 - Performance Management Accountability Indicators (February 16 and 18, 2005 versions)
- **Key activities undertaken to address public confidence indicator results (2003 survey)**
 - Accountability Document (2005/2006)
 - Performance Management Accountability Indicators (March 16, March 31, and May 21, 2005 versions)
- **Key activities undertaken by RHA to address public confidence reported**
 - Accountability Document (2006/2007 onwards)
 - Performance Management Accountability Indicators (April 21, 2006 version onwards)
 - Performance Management Dashboard (2005/2006 onwards)

CAPITAL

No active indicators.

PROGRAM-SPECIFIC INDICATORS

This section contains program specific measures organized by funding pool. The measures are intended to assess the Regional Health Authority's (RHA's) performance in delivering these services including outcomes, and are generally defined more narrowly than the health status and organizational effectiveness indicators.

PROVINCE-WIDE SERVICES

Province-Wide Services include province-wide rehabilitation (Saskatoon City Hospital and Wascana Rehabilitation Centre), mental health (Saskatchewan Hospital North Battleford (SHNB)), addictions (Calder Centre), and specialized hospital services. Specialized hospital services are defined as major, high-cost outpatient programs that are only provided in specific locations. These include: integrated renal program, cardiac program, specialized imaging programs (MRI, nuclear medicine, CT, bone density), endovascular surgery, specialized respiratory services, poison information services, medical illustration, medical genetics, maternal serum screening, Visudyne, ECCP, lithotripsy, bleeding disorders, enterostomal therapy, pediatric transport, and telehealth.

Note: These indicators apply only to those regional health authorities (RHAs) that provide the particular province-wide service.

Number of exams as a percentage of agreed on target for specialized medical imaging services: magnetic resonance imaging (MRI) scans

Section: Program-Specific Indicators

Sub-Section: Province-Wide Services

Category: Health System Performance

Type of Measure: Efficiency

Status: Active (since 2004/2005)
 Quarterly Performance Management Report (“Dashboard”) measure (since 2004/2005)

Definition: The number of MRI exams as a percentage of agreed on target performed for a specified time period.

Template Content Last Changed: May 26, 2006

Interpretation

Rationale and Notes for Interpretation

The Canadian Institute for Health Information (CIHI) defines the following terms in Appendix B of its report “Medical Imaging in Canada, 2004”:

Modality	A treatment, or method of examination (e.g. X-ray, ultrasound, CT scan, MRI).
Examination	A defined technical investigation using an imaging modality to study one body structure, system or anatomical area that yields one or more views for diagnostic and/or therapeutic purpose. Exceptions include routinely ordered multiple body structures that by common practice or protocol are counted as one exam.
Computed Tomography Scan (CT) or Computed Assisted or Axial Tomography (CAT) Scan	A diagnostic technique that uses X-rays and computer technology to produce cross-sectional images (often called slices), both horizontally and vertically, of the body. A CT scan can show detailed images of various parts of the body, including the bones, muscles, fat, and organs. They are more detailed than general X-rays.
Magnetic Resonance Imaging (MRI)	A diagnostic technology that uses a large magnet, radio waves, and computer to scan a patient’s body and produce two- or three-dimensional images of tissues and organs.

Patients can have more than one exam in a single visit. The patient column in the data table presents the number of visits, not discrete patients. So, if an individual patient has more than one visit over the course of a specified time period (e.g. quarter, year), they will be counted for each visit in the patient column.

Targets / Benchmarks

Saskatchewan Health has negotiated annual target volumes of exams with each health region.

Performance Management Accountability Indicators

Targets for the quarterly Performance Management Reports (quarterly “dashboards”) were calculated by dividing the annual target by four. This may not be an accurate target, because actual quarterly volumes may fluctuate as a result of staff vacation, equipment maintenance, or other reasons.

Contributing Factors

Regions have different numbers of machines and hours of operation.

MRI Services in Saskatchewan: December 30, 2005

Location	Hours of Operation	Number of Machines
Royal University Hospital (Saskatoon)	<ul style="list-style-type: none"> • 16 hours per day Monday to Friday (7:30 a.m. to midnight) • Saturdays and Sundays from 8:00 a.m. to 4:30 p.m. 	1
Saskatoon City Hospital	<ul style="list-style-type: none"> • 10.5 hours per day (7:30 a.m. until 6:00 p.m.) 	1
Regina General Hospital	<ul style="list-style-type: none"> • 16 hours per day Monday to Friday (6:30 a.m. to 10:30 p.m.) • Saturdays from 7:30 a.m. to 3:30 p.m. • This MRI became operational December 17, 2005. 	1 (new MRI)
	<ul style="list-style-type: none"> • 8 hours per day Monday to Friday (Mobile unit began operations the week of September 12, 2005, and was taken out of service on January 31, 2006.) 	1 (mobile)
	<ul style="list-style-type: none"> • The initial MRI scanner is operating 8 hours per day Monday to Friday (7:00 a.m. to 4:00 p.m.) with plans to extend to 16 hours per day as staffing allows. 	1
Total		4 (fixed) 1 (mobile – out of service)

Another contributing factor is the staffing level, which is affected by the ability to recruit and retain individuals with the right knowledge, skills and training.

Impact on Other Indicators

To be determined.

Potential for Action and Influence

The following strategies may improve the results for this indicator:

- Human Resources strategic planning for radiologists, technologists, clerical support, and service (Information Technology / biomedical) manpower requirements;
- recruiting additional clinical specialists, including radiologists;
- investigate the opportunities for re-training technologists from one modality to another;
- incentives for recruitment and retention;
- positive initiatives to address the issue of non-certified radiologists;
- expansion of the role of Medical Radiation Technologists (MRTs) to assume some tasks of radiologists;
- introduction of technology aides to assume some tasks of MRTs;
- education and career planning opportunities;

Performance Management Accountability Indicators

- consistent wage rates in comparison to other provinces;
- initiatives to raise morale and eliminate staff burnout;
- development of common policies, procedures, and guidelines among RHAs;
- increases in cross-coverage capabilities among hospitals and RHAs;
- re-engineering of work processes to improve productivity and workflow with implementation of Radiology Information System / Picture Archiving and Communication System (RIS/PACS);
- increases in remote reading / teleradiology;
- use of speech recognition rather than manual transcription (enhanced workflow);
- computer-aided / computer-effected interpretation;
- robotic interventionalists; and,
- smart workstations.

Data Tables

Please see the corresponding section in the document “Performance Management Accountability Indicators: Data Tables”.

Technical Specification

Method of Calculation

Calculation

Number of MRI exams performed divided by target, expressed as a percent.

Numerator

Number of MRI exams performed in the specified region for the specified time period.

Denominator

Agreed upon target for number of MRI exams to be performed in the specified region over the course of the fiscal year.

If the specified time period is a quarter, then the denominator is the agreed upon target divided by four.

Inclusions / Exclusions

Inclusions:

- Medical imaging services performed in Saskatchewan, regardless of patient residence.

Exclusions:

- Exams performed on Saskatchewan residents in out-of-province facilities.

Data Source

Source

Summarized data from managers in health regions.

Flow

Saskatchewan Health does not currently have a database that records these services at the patient level. We rely on summarized reports sent from managers in the health regions on a regular basis.

Availability

Saskatchewan Health receives monthly updates from the regions, within 30 days of the end of the month.

Limitations

None.

References

- Canadian Institute for Health Information (CIHI). 2004. "Medical Imaging in Canada, 2004". Ottawa, Ontario: CIHI. ISBN 1-55392-516-5 (PDF). ([Medical_Imaging_in_Canada_2004_e.pdf](#)) ([secure.cihi.ca/cihiweb/dispPage.jsp?cw_page=PG_328_E&cw_topic=328&cw_rel=AR_1043_E](#))
- Fryback, D.G. and J.R. Thornbury. 1991. "The efficacy of diagnostic imaging". *Medical Decision Making: An International Journal of the Society for Medical Decision Making* 11(2): 88-94.
- ProMed Associates Limited. December 1, 2004. "Report to the Saskatchewan Department of Health for A Province-Wide Diagnostic Imaging Review and Framework for Strategic Planning". Burnaby, British Columbia: ProMed Associates Limited. ([www.health.gov.sk.ca/mc_dp_diagnostic_imaging_review.pdf](#))
- Saskatchewan Health. December 2004. "A Report on the Health Reform Fund & Diagnostic and Medical Equipment Fund". ([www.health.gov.sk.ca/mc_rpt_reformfund_diagmed equip.pdf](#))

Indicator Name Reference List

- **Number of MRI scans (patients) conducted**
 - Accountability Document (2004/2005)
- **Number of MRI exams conducted**
 - **Number of MRI patients**
 - Performance Management Dashboard (2004/2005)
- **Number of exams as a percentage of target volume for specialized medical imaging services: magnetic resonance imaging (MRI) scans**
 - Accountability Document (2005/2006)
 - Performance Management Accountability Indicators (March 16, 2005 version and earlier)
- **Number of exams for specialized medical imaging services: magnetic resonance imaging (MRI) scans**
 - Performance Management Accountability Indicators (March 31 and May 21, 2005 versions)
- **MRI Exams as a Percent of Agreed on Target**
 - **Number of MRI patients**
 - Performance Management Dashboard (2005/2006)
- **Number of exams as a percentage of agreed on target for specialized medical imaging services: magnetic resonance imaging (MRI) scans**
 - Accountability Document (2006/2007 onwards)
 - Performance Management Accountability Indicators (April 21, 2006 version onwards)
 - Performance Management Dashboard (2006/2007 onwards)

Number of exams as a percentage of agreed on target for specialized medical imaging services: computed tomography (CT) scans

Section: Program-Specific Indicators

Sub-Section: Province-Wide Services

Category: Health System Performance

Type of Measure: Efficiency

Status: Active (since 2004/2005)
 Quarterly Performance Management Report (“Dashboard”) measure (since 2004/2005)

Definition: The number of CT exams as a percentage of agreed on target performed for a specified time period.

Template Content Last Changed: May 26, 2006

Interpretation

Rationale and Notes for Interpretation

The Canadian Institute for Health Information (CIHI) defines the following terms in Appendix B of its report “Medical Imaging in Canada, 2004”:

Modality	A treatment, or method of examination (e.g. X-ray, ultrasound, CT scan, MRI).
Examination	A defined technical investigation using an imaging modality to study one body structure, system or anatomical area that yields one or more views for diagnostic and/or therapeutic purpose. Exceptions include routinely ordered multiple body structures that by common practice or protocol are counted as one exam.
Computed Tomography Scan (CT) or Computed Assisted or Axial Tomography (CAT) Scan	A diagnostic technique that uses X-rays and computer technology to produce cross-sectional images (often called slices), both horizontally and vertically, of the body. A CT scan can show detailed images of various parts of the body, including the bones, muscles, fat, and organs. They are more detailed than general X-rays.
Magnetic Resonance Imaging (MRI)	A diagnostic technology that uses a large magnet, radio waves, and computer to scan a patient’s body and produce two- or three-dimensional images of tissues and organs.

Patients can have more than one exam in a single visit. The patient column in the data table presents the number of visits, not discrete patients. So, if an individual patient has more than one visit over the course of a specified time period (e.g. quarter, year), they will be counted for each visit in the patient column.

Targets / Benchmarks

Saskatchewan Health has negotiated annual target volumes of exams with each health region.

Targets for the quarterly Performance Management Reports (quarterly “dashboards”) were calculated by dividing the annual target by four. This may not be an accurate target, because actual quarterly volumes may fluctuate as a result of staff vacation, equipment maintenance, or other reasons.

Performance Management Accountability Indicators

Contributing Factors

Regions have different numbers of machines and hours of operation.

CT Services in Saskatchewan: December 30, 2005

Location	Start-up Date	Hours of Operation
Royal University Hospital (Saskatoon)	2003	5/5/5 basis 15 hours per day.
Saskatoon City Hospital	1998	5/5/4 basis nine hours per day. The on-call radiologist prioritizes after-hour emergencies and these are done ASAP.
St. Paul's Hospital (Saskatoon)	December 2005 <i>(anticipated upgrade)</i>	5/5/4 basis nine hours per day. The on-call radiologist prioritizes after-hour emergencies and these are done ASAP.
Regina General Hospital	September 2005 2001	The 64-slice CT operates five days/week 15 hours/day and eight hours per day on weekends. The 8-slice CT operates on a 5/5/5 basis 10 hours per day.
Pasqua Hospital (Regina)	June 2005	5/5/5 basis 10 hours/day. Technologists are on call for after hour emergencies and these are done ASAP.
Prince Albert	December 2005 <i>(anticipated upgrade)</i>	5/5/5 basis eight hours per day. CT after hours is left to the discretion of the radiologist on call and is dependent on technologist availability.
Moose Jaw	September 2004	Monday to Friday – eight hours/day basis. The CT is not used on an emergency basis after hours.
Swift Current	October 2004	Mondays – emergencies and In-Patients from the weekend; Tuesday/Wednesday – six hours/day; Thursday – eight hours/day; Friday – only book urgents or emergencies. CT after hours is left to the discretion of the radiologist on call. All calls for emergency CT go through the radiologist and if the call back is approved, staff are called in.
Yorkton	December 2004	Monday to Friday, 7.5 hours per day (8:00 a.m. to 4:30 p.m.). The CT is available on an emergency basis after hours, 7 days per week.
Lloydminster	January 2006	Monday to Friday, 7.5 hours per day (8:00 a.m. to 4:30 p.m.). The CT is not currently available after hours.
North Battleford	October 2005	Monday to Friday, 8 hours per day (8:00 a.m. to 4:30 p.m.). The CT is not currently available after hours.

Another contributing factor is the staffing level, which is affected by the ability to recruit and retain individuals with the right knowledge, skills and training.

Impact on Other Indicators

To be determined.

Potential for Action and Influence

The following strategies may improve the results for this indicator:

- Human Resources strategic planning for radiologists, technologists, clerical support, and service (Information Technology / biomedical) manpower requirements;
- recruiting additional clinical specialists, including radiologists;
- investigate the opportunities for re-training technologists from one modality to another;

Performance Management Accountability Indicators

- incentives for recruitment and retention;
- positive initiatives to address the issue of non-certified radiologists;
- expansion of the role of Medical Radiation Technologists (MRTs) to assume some tasks of radiologists;
- introduction of technology aides to assume some tasks of MRTs;
- education and career planning opportunities;
- consistent wage rates in comparison to other provinces;
- initiatives to raise morale and eliminate staff burnout;
- development of common policies, procedures, and guidelines among RHAs;
- increases in cross-coverage capabilities among hospitals and RHAs;
- re-engineering of work processes to improve productivity and workflow with implementation of Radiology Information System / Picture Archiving and Communication System (RIS/PACS);
- increases in remote reading / teleradiology;
- use of speech recognition rather than manual transcription (enhanced workflow);
- computer-aided / computer-effected interpretation;
- robotic interventionalists; and,
- smart workstations.

Data Tables

Please see the corresponding section in the document "Performance Management Accountability Indicators: Data Tables".

Technical Specification

Method of Calculation

Calculation

Number of CT exams performed divided by target, expressed as a percent.

Numerator

Number of CT exams performed in the specified region for the specified time period.

Denominator

Agreed upon target for number of CT exams to be performed in the specified region over the course of the fiscal year.

If the specified time period is a quarter, then the denominator is the agreed upon target divided by four.

Inclusions / Exclusions

Inclusions:

- Medical imaging services performed in Saskatchewan, regardless of patient residence.

Exclusions:

- Exams performed on Saskatchewan residents in out-of-province facilities.

Data Source

Source

Summarized data from managers in health regions.

Performance Management Accountability Indicators

Flow

Saskatchewan Health does not currently have a database that records these services at the level of the patient. We rely on summarized reports sent from managers in the health regions on a regular basis.

Availability

Saskatchewan Health receives monthly updates from the regions, within 30 days of the end of the month.

Limitations

None.

References

- Canadian Institute for Health Information (CIHI). 2004. "Medical Imaging in Canada, 2004". Ottawa, Ontario: CIHI. ISBN 1-55392-516-5 (PDF). ([Medical_Imaging_in_Canada_2004_e.pdf](#)) ([secure.cihi.ca/cihiweb/dispPage.jsp?cw_page=PG_328_E&cw_topic=328&cw_rel=AR_1043_E](#))
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Indicator Name Reference List

- **Number of CT scans (patients) conducted**
 - Accountability Document (2004/2005)
- **Number of CT exams conducted**
 - **Number of CT patients**
 - Performance Management Dashboard (2004/2005)
- **Number of exams as a percentage of target volume for specialized medical imaging services: computed tomography (CT) scans**
 - Accountability Document (2005/2006)
 - Performance Management Accountability Indicators (March 16, 2005 version and earlier)
- **Number of exams for specialized medical imaging services: computed tomography (CT) scans**
 - Performance Management Accountability Indicators (March 31 and May 21, 2005 versions)
- **CT Exams as a Percent of Agreed on Target**
 - **Number of CT patients**
 - Performance Management Dashboard (2005/2006)

- **Number of exams as a percentage of agreed on target for specialized medical imaging services: computed tomography (CT) scans**
 - Accountability Document (2006/2007 onwards)
 - Performance Management Accountability Indicators (April 21, 2006 version onwards)
 - Performance Management Dashboard (2006/2007 onwards)

Average wait time for admission to Saskatchewan Hospital North Battleford (SHNB)

Section:	Program-Specific Indicators
Sub-Section:	Province-Wide Services
Category:	Health System Performance
Type of Measure:	Efficiency
Status:	Active (since 2004/2005)
Definition:	Average time in days from approval for admission to Saskatchewan Hospital North Battleford (SHNB) to admission for services for a specified time period.

Template Content Last Changed: April 21, 2006

Interpretation

Rationale and Notes for Interpretation

Temporal access or waiting time is an important dimension of accessibility. Prompt intervention can avert mental health crises. Delays in service can result in harm to persons with serious mental illness and their families as well as discouraging future treatment seeking behaviour.

Targets / Benchmarks

To be determined.

Contributing Factors

- Service volumes.
- Social stability and support.
- Spousal and/or family support.
- Cognitive impairment.

Impact on Other Indicators

To be determined.

Potential for Action and Influence

To be determined.

Data Tables

Please see the corresponding section in the document “Performance Management Accountability Indicators: Data Tables”.

Technical Specification

Method of Calculation

Calculation

The total number of days wait from approval to admission to SHNB divided by the total number of clients admitted, for a specified time period.

Numerator

The total number of days from approval for admission to SHNB to admission for services for a specified time period.

Denominator

The total number of clients referred to and accepted in SHNB’s Admission Unit for a specified time period.

Inclusions / Exclusions

Exclusions:

- Forensic Unit admissions.

Data Source

Source

Saskatchewan Mental Health Program Review (Community Care Branch, Saskatchewan Health), based on information provided by Prairie North Regional Health Authority.

Flow

This measure is calculated by Prairie North (the region manages SHNB, and collects the patient statistics used in the calculation). Saskatchewan Health obtains this information from Prairie North for the program review.

Availability

Annually. Data is available six months after the end of the fiscal year.

Limitations

A more accurate picture could be determined by reviewing standards of practice and specific details.

This indicator does not include those individuals who were admitted to the Forensic Admissions Unit. There is no wait time for forensic placements; individuals are admitted directly from the courts.

References

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adolescents: a prospective naturalistic study". *Journal of the American Academy of Child & Adolescent Psychiatry* 42(1): 49-56.

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Mojtabai, R., R.A. Rosenheck, R.J. Wyatt and E.S. Susser. 2003. "Use of VA aftercare following military discharge among patients with serious mental disorders". *Psychiatric Services* 54(3): 383-388.

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Rosenheck, R. 2000. "Primary care satellite clinics and improved access to general and mental health services". *Health Services Research* 35(4): 777-790.

Snowden, L.R. 2001. "Barriers to effective mental health services for African Americans". *Mental Health Services Research* 3(4): 181-187.

Indicator Name Reference List

- **Timely access to services at SHNB, measured by average wait time for admission, by RHA, after admission has been approved**
 - Accountability Document (2004/2005)
- **Average wait time for admission to SHNB**
 - Performance Management Accountability Indicators (February 16 and 18, 2005 versions)
- **Average wait time for admission to Saskatchewan Hospital North Battleford (SHNB)**
 - Accountability Document (2005/2006 onwards)
 - Performance Management Accountability Indicators (March 16, 2005 version onwards)

Alcohol and drug inpatient treatment completion rate per 100 admissions – Calder Centre

Section: Program-Specific Indicators

Sub-Section: Province-Wide Services

Category: Health System Performance

Type of Measure: Output

Status: Active (since 2004/2005)

Definition: Number of admissions to Calder Centre (Saskatoon) who complete alcohol and drug inpatient treatment expressed as a percentage of the total number of admissions for a specified time period (e.g. fiscal year).

Template Content Last Changed: May 26, 2006

Interpretation

Rationale and Notes for Interpretation

For clients, a successful treatment experience is contingent on the completion of an appropriate substance abuse program. Lack of successful completion may be indicative of an inability to meet the service needs of the clients. This does not necessarily denote system ineffectiveness – clients must be ready for treatment and be properly directed to a service that most completely addresses the holistic needs of the client.

It should also be noted that for many substance abusers who are in remission, success has come after several failed attempts at alcohol and drug treatment.

Individuals who are part of an inpatient / residential alcohol and drug treatment program are likely to become, or are already, outpatient alcohol and drug clients. This may create a picture of greater overall population utilization when in fact a smaller chronic group are being counted as clients in several programs instead of being identified as a singular discrete client receiving a number of services through the alcohol and drug treatment continuum.

Targets / Benchmarks

To be determined.

Contributing Factors

- Frequency and severity of substance use.
- Greater self-awareness of the severity of substance abuse.
- Social stability – spousal and/or family support.
- Length of time between initial contact with client and first treatment.
- Cognitive impairment.
- Self-referring clients are more likely to complete treatment.

Impact on Other Indicators

- Outpatient Alcohol and Drug Treatment Completion Rate: Individuals who are part of an inpatient or residential alcohol and drug treatment program are also likely outpatient clients. This may create a picture of greater overall population utilization when in fact a smaller chronic group is being counted throughout several programs.
- Problem Gambling Treatment Completion Rate: As above.
- Mental Health Inpatient Treatment Completion Rate / Timely Access to Outpatient Mental Health Services: As above.

Potential for Action and Influence

To be determined.

Data Tables

Please see the corresponding section in the document “Performance Management Accountability Indicators: Data Tables”.

Technical Specification

Method of Calculation

Calculation

Number of admissions to Calder Centre (Saskatoon) who complete alcohol and drug inpatient treatment divided by the total number of admissions for a specified time period, expressed as a percentage.

Numerator

The total number of admissions to Calder Centre (Saskatoon) who complete alcohol and drug inpatient treatment, as determined by a case disposition of either “completed treatment” or “completed and transferred”, by Regional Health Authority (RHA) of residence.

Denominator

The total number of alcohol and drug inpatient admissions at Calder Centre (Saskatoon) by RHA of residence.

Inclusions / Exclusions

Inclusions:

- For the numerator, admissions with a case disposition of “completed treatment” or “completed and transferred”.

Exclusions:

- It is possible for clients who enter treatment in a given fiscal year to be discharged in a subsequent fiscal year. These are accounted for in the subsequent fiscal year.

Data Source

Source

Alcohol and Drug Client Information System (ADCIS), Health Information Solutions Centre (HISC), Saskatchewan Health.

Flow

Alcohol and Drug Services staff complete admission and discharge forms for clients providing they have been deemed to have had a contact with a “significant” treatment component. The forms are collated and forwarded to HISC, Saskatchewan Health at the end of the intake month. Data are entered into the ADCIS and error sheets, for missing or incorrect information, are forwarded to the reporting agency quarterly. Service providers are expected to return corrections within two weeks.

Availability

Program statistics are reported in a preliminary format quarterly with an annual report issued after April 1st. Data is available 6 months after the end of the fiscal year.

Limitations

Concerns include reporting inconsistencies, regional acceptable standards of practice, database inconsistency and frequency of self-report to treatment.

References

Callaghan, R.C. and J.A. Cunningham. 2002. “Gender differences in detoxification: predictors of completion and re-admission”. *Journal of Substance Abuse Treatment* 23(4): 399-407.

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Indicator Name Reference List

- **Provision of appropriate and effective care to Calder inpatients, measured by percentage of clients who complete treatment by RHA**
 - Accountability Document (2004/2005)
- **Alcohol and drug inpatient treatment completion rates – Calder Centre**
 - Performance Management Accountability Indicators (February 16 and 18, 2005 versions)
- **Alcohol and drug inpatient treatment completion rate per 100 admissions – Calder Centre**
 - Accountability Document (2005/2006 onwards)
 - Performance Management Accountability Indicators (March 16, 2005 version onwards)

Length of stay efficiency of inpatient rehabilitation programs – Wascana Rehabilitation Centre and Saskatoon City Hospital

Section: Program-Specific Indicators

Sub-Section: Province-Wide Services

Category: Health System Performance

Type of Measure: Efficiency

Status: Active (since 2005/2006)

Definition: Length of stay (LOS) efficiency is defined as the change in client functional independence from admission to discharge, per day of client participation in the inpatient rehabilitation program. Functional independence is measured by the Total Function Score, which is the sum of the scores for all 18 elements on the FIM™ instrument, ranging from 18 to 126. A higher Total Function Score suggests a higher level of independent functioning in activities of daily living and communication.

This indicator measures the average of the individual client length of stay efficiency values for rehabilitation inpatient programs at Wascana Rehabilitation Centre (WRC) and Saskatoon City Hospital (SCH) for a specified time period.

Template Content Last Changed: April 21, 2006

Interpretation

Rationale and Notes for Interpretation

Generally, a high value for length of stay efficiency means that clients' functional status improved in a relatively short period of time. Comparing length of stay efficiency across client groups should be undertaken with caution, as the FIM™ instrument reflects a broad assessment of human functioning. Some clients who initially score lower due to a limitation in body function will appear to have more room for improvement in Total Function Score. The score for clients that have limitations isolated to one or two particular body functions may not increase as much, even though they may have made clinically significant gains in their rehabilitation program.

Saskatchewan started submitting data to the Canadian Institute for Health Information's (CIHI's) National Rehabilitation Reporting System (NRS) in 2001, and represents the third largest volume of data going to the NRS. Data quality is an issue (CIHI has assigned a data quality flag of yellow); however, each centre is working on improving data entry and the comparability of their data.

Targets / Benchmarks

To be determined.

Contributing Factors

Factors which contribute to the length of stay efficiency include:

- wait lists for surgical procedures;
- staffing;
- level of disability upon admission;
- level of medical complexity; and,
- regional treatment standard.

Impact on Other Indicators

To be determined.

Potential for Action and Influence

To be determined.

Data Tables

Please see the corresponding section in the document "Performance Management Accountability Indicators: Data Tables".

Technical Specification

Method of Calculation

Calculation

Individual client LOS efficiency is calculated as the change in Total Function Score divided by length of stay in the inpatient rehabilitation program (excluding service interruption days).

The LOS efficiency for each rehabilitation client group is the average of the individual client ratios for that group.

Separate calculations are performed for WRC and SCH, respectively.

Performance Management Accountability Indicators

Numerator

For each client, the discharge Total Function Score minus the admission Total Function Score.

Denominator

For each client, the length of stay in days in the inpatient rehabilitation program (excluding service interruption days).

Inclusions / Exclusions

Inclusions:

- Only clients discharged with complete discharge and admission assessments were included.

Exclusions:

- Fiscal Year-end: Clients may be admitted in one fiscal year and discharged in another. These individuals will be accounted for in the fiscal year in which they are discharged.
- Clients who were discharged within 3 days of their admission are excluded from analysis by the Canadian Institute for Health Information (CIHI) as data are incomplete.
- Clients who do not have discharge assessment information successfully submitted by the time of data run.

Data Source

Source

Data was obtained from Saskatoon City Hospital and Wascana Rehabilitation Centre, based on data submitted to the National Rehabilitation Reporting System (NRS), Canadian Institute for Health Information (CIHI).

Please note that data is not from CIHI's Discharge Abstract Database (DAD).

Flow

Rehabilitation clinicians collect the data when a client is admitted to, and when discharged from, the inpatient rehabilitation program. At regular intervals, hospitals send this information in an electronic format to CIHI, where data validation occurs in order to ensure the records are consistent with the technical specifications for the NRS. CIHI stores the records and creates various management and comparative reports for each hospital. These reports are produced on a quarterly basis.

Availability

Annually. Data is available within six months of the end of the fiscal year.

Limitations

It should again be noted that data quality is an issue (CIHI has assigned a data quality flag of yellow), but the centres are continually working to improve data quality. Also, this data does not reflect all therapy program services in the province.

References

- Canadian Institute for Health Information (CIHI). 2004. "Inpatient Rehabilitation in Canada, 2002-2003". Ottawa, Ontario: CIHI.
- Granger, C.V., and R.T. Linn. 2000. "Biologic patterns of disability". *Journal of Outcome Measurement* 4(2): 595-615.
- Warschawsky, S., J.B. Kay, and D.G. Kewman. March 2001. "Hierarchical linear modelling of FIM instrument growth curve characteristics after spinal cord injury". *Archives of Physical Medicine and Rehabilitation* 82(3): 329-334.

Indicator Name Reference List

- **Length of stay efficiency of inpatient rehabilitation programs – Wascana Rehabilitation Centre and Saskatoon City Hospital**
 - Accountability Document (2005/2006 onwards)
 - Performance Management Accountability Indicators (all versions to date)

ACUTE CARE

Acute Care includes hospitals (institutional acute care), and surgical waiting list.

Number of surgical cases, and percentage of surgical cases performed as day surgery

Section: Program-Specific Indicators

Sub-Section: Acute Care

Category: Health System Performance / Community and Health System Characteristics

Type of Measure: Output / Efficiency

Status: Active (since 2004/2005)
Quarterly Performance Management Report (“Dashboard”) measure (since 2004/2005)
[The indicator will change to just “Percentage of surgical cases performed as day surgery” in 2006/2007.]

Definition: The number of surgeries reported to the Saskatchewan Surgical Care Network (SSCN) Surgical Patient Registry by region of service and type (inpatient, day surgery) for a specified time period.

Template Content Last Changed: May 26, 2006

Interpretation

Rationale and Notes for Interpretation

Volumes of surgeries do not tell the complete picture because some surgeries take fewer resources than others. Showing the inpatient versus day surgery breakdown goes some way to address this. Looking at surgical hours along with volumes may provide a better picture.

Increasing the number of procedures performed in the day surgery setting frees up inpatient beds for other procedures that require a longer recovery time.

Knowing what is going on in the environment (i.e. the context) is also important in interpreting the results. For example, more day surgery may have been performed due to job action, shortage of inpatient beds, in order to meet certain targets, or because the region may have a larger proportion of cases that can be handled in the day surgery setting.

Targets / Benchmarks

Saskatchewan Health has agreements with Regional Health Authorities (RHAs) regarding the volume of surgeries that they will provide each year.

Contributing Factors

To be determined.

Impact on Other Indicators

To be determined.

Potential for Action and Influence

The goal of Saskatchewan Health is to increase the volumes of medically necessary procedures where patients are waiting excessively long times for surgery, in addition to managing wait lists in a more efficient manner in order to reduce the maximum wait time.

Potential to increase day surgery can be examined by investigating the day surgery rates for specific procedures in other regions. Within a region, examination of surgical cases with a length of stay of one or two days may indicate potential to move these surgeries to a day procedure setting. Coordination with community health services such as Home Care and Institutional Supportive Care may offer opportunities to move procedures from the inpatient to day surgery setting.

Data Tables

Please see the corresponding section in the document "Performance Management Accountability Indicators: Data Tables".

Technical Specification

Method of Calculation

Calculation

Day surgeries divided by total number of surgeries, expressed as a percentage.

Numerator

Total number of day surgeries in a specified time period.

Denominator

Total surgeries (inpatient and day surgery) in a specified time period.

Inclusions / Exclusions

Inclusions:

- Surgeries performed on out-of-province residents in Saskatchewan facilities.
- Emergency surgeries as well as wait listed cases.
- All surgeries performed and recorded in the Saskatchewan Surgical Care Network (SSCN) Surgical Patient Registry, with the exception of day surgery cystoscopies performed under a local anaesthetic in St. Paul's Hospital (Saskatoon).
- The surgeries using funding targeted toward long waiting patients.
- The following facilities have reported surgery performed data to the Surgical Patient Registry in 2005/2006:
 - **Sun Country:** St. Joseph's Hospital (Estevan), Weyburn General Hospital

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- **Five Hills:** Moose Jaw Union Hospital
- **Cypress:** Cypress Regional Hospital (Swift Current)
- **Regina Qu'Appelle:** Regina General Hospital, Pasqua Hospital (Regina)
- **Sunrise:** St. Peter's Hospital (Melville), Yorkton Regional Health Centre
- **Saskatoon:** Saskatoon City Hospital, St. Paul's Hospital (Saskatoon), Royal University Hospital (Saskatoon)
- **Heartland:** Kindersley Hospital, Rosetown and District Health Centre
- **Kelsey Trail:** Melfort Hospital, Nipawin Hospital
- **Prince Albert Parkland:** Big River Health Centre, Victoria Hospital (Prince Albert), Spiritwood and District Health Complex
- **Prairie North:** Lloydminster Hospital, Northwest Health Facility (Meadow Lake), Battlefords Union Hospital.

Exclusions:

- Surgeries performed on Saskatchewan residents in out-of-province facilities.
- Surgeries performed outside of an operating room setting (e.g. in ambulatory care).
- For 2004/2005, surgeries performed in Humboldt, Heartland, Sun Country, Kelsey Trail and the northern health regions.
- For 2005/2006, surgeries performed in Humboldt and the northern health regions.
- Day surgery cystoscopies performed under a local anaesthetic in St. Paul's Hospital (Saskatoon).

Data Source

Source

Saskatchewan Surgical Care Network (SSCN) Surgical Patient Registry.

Flow

The SSCN Surgical Patient Registry is a web based application that tracks the wait times and priority level for each surgery performed in the province. Data from each region are entered into the system and stored in a central database maintained by the Health Information Solutions Centre, Saskatchewan Health. The smaller regions key the data directly into the database through a web based front end. Regina Qu'Appelle and Saskatoon upload the data into the registry from their surgery booking systems. For analysis purposes, it is best to wait about a month to allow for the majority of booking or surgery performed records to be entered. Analysts at Saskatchewan Health have access to all of the data and analysts in the regions have access to their own data.

Availability

Ongoing. The full fiscal year of data is available about one month after the end of the fiscal year.

Surgery performed data is generally available one month following the date of surgery.

Limitations

For 2004/2005, Heartland, Sun Country, and Kelsey Trail did not report to the Surgical Patient Registry for the full fiscal year. The northern health regions are not expected to report to the registry. They represent a small volume of the surgeries performed in the province (approximately 4% based on the surgical cases in the 2001-02 Acute Care Activity Indicators report which is based on the Canadian Institute for Health Information Discharge Abstract Database data).

Some records do not have the inpatient versus day surgery information filled in. The percentage of cases that are day surgery is based on the cases where the inpatient versus day surgery information is known.

References

- Glynn, P.A. 2002. "Creating a surgical wait list management strategy for Saskatchewan". *Hospital Quarterly* 5(3): 42-44. (www.longwoods.com/opinions/HQ53PGlynn.pdf)
- Glynn, P.A., L.M. Donnelly, D.A. Calder and J.C. Brown. 2003. "The Saskatchewan Surgical Care Network – toward timely and appropriate access". *Hospital Quarterly* 7(1): 44-48. (www.longwoods.com/opinions/HQ71PGlynn.pdf)
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- Saskatchewan Surgical Care Network (SSCN) website. (www.sasksurgery.ca)
- Western Canada Wait List Project website. (www.wcwl.org)

Indicator Name Reference List

- **Surgical volumes and the percentage of cases completed within benchmarked time frames**
 - Accountability Document (2003/2004)
- **Surgical volumes and case mix**
 - Accountability Document (2004/2005)
- **Number of surgical cases**
 - **Mix of surgical cases, % day surgery**
 - Performance Management Dashboard (2004/2005)
- **Number of surgical cases**
 - **Mix of surgical cases, percent day surgery**
 - Performance Management Dashboard (2005/2006)
- **Number of surgical cases, and percentage of surgical cases performed as day surgery**
 - Accountability Document (2005/2006)
 - Performance Management Accountability Indicators (May 26, 2006 version and earlier)
- **Percentage of surgical cases performed as day surgery**
 - Accountability Document (2006/2007 onwards)
 - Performance Management Accountability Indicators (next version)
 - Performance Management Dashboard (2006/2007 onwards)

Percentage of Priority Level II, IV and VI surgical cases completed within Saskatchewan's Target Time Frames

Section:	Program-Specific Indicators
Sub-Section:	Acute Care
Category:	Health System Performance
Type of Measure:	Efficiency
Status:	Active (since 2004/2005) Quarterly Performance Management Report ("Dashboard") measure (since 2004/2005) <i>[The indicator will be changed in 2006/2007 to reflect the four new Priority Levels (3 week, 6 week, 3 month, 12 month) and exclusion of emergency surgeries.]</i>
Definition:	The percentage of all surgeries of Priority Levels II, VI and VI that were performed within the Target Time Frames.

Template Content Last Changed: May 26, 2006

Interpretation

Rationale and Notes for Interpretation

The role of the Saskatchewan Surgical Care Network (SSCN) is to ensure a better, more equitable surgical care system for Saskatchewan people.

The SSCN Patient Assessment Process has been developed to consistently assess patients' level of need for surgery, and fairly place them on the waiting list.

This indicator shows the proportion of patients that have received their surgery within an appropriate time based on their condition and situation.

Starting in February 2006, all wait times for left/right cataract surgeries have been readjusted to count the start of the wait for a second cataract surgery to be the date when the first surgery was performed. If the patient is waiting for cataract surgeries to be done on both eyes, only one surgery will be counted on the wait list rather than two. These adjustments have been applied retrospectively to historical data as well. The application of similar adjustments for other bilateral procedures is presently under discussion in the SSCN subcommittees, and their recommendation will be reflected in future versions of the calculation methodology for this indicator.

For some regions, surgical volumes for some Priority Levels are very low, and results should be interpreted with caution. In some cases, a region may not have had any surgical cases categorized as a particular Priority Level.

The Priority Levels and Target Time Frames will change in 2006/2007. These changes have already been implemented in the surgical patient registry, so 2005/2006 percent of surgeries meeting Target Time Frames reported for this indicator may differ slightly from those in the registry reports.

Surgical wait times for Saskatchewan were included in the "Saskatchewan Comparable Health Indicators Report 2004" (Saskatchewan Health, 2004):

- Wait times for cardiac bypass surgery (17-OI); and,
- Wait times for surgical specialties (SK only).

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Please see pages 99 to 109 of the report and sections 17-OI and “SK only” of the report’s technical specifications appendix for more information. Technical specifications for 17-OI can also be found in “Considerations for data production for reporting comparable health indicators in November 2004” (Performance Reporting Technical Working Group (PRTWG), 2004).

Two other surgical wait times were reported in Saskatchewan’s report, but commentary was not provided:

- Wait times for hip replacement surgery (18-OI); and,
- Wait times for knee replacement surgery (19-OI).

Please see sections 18-OI and 19-OI of “Considerations for data production for reporting comparable health indicators in November 2004” (PRTWG, 2004) for more information.

Targets / Benchmarks

The Target Wait Times by Priority Level determined from the Patient Assessment Tool and Urgency Profiles for each procedure are as follows:

Priority Level	Urgency Score Range	Target Wait Time
Priority I	95 to 100	95% within 24 hours
Priority II	80 to 94	95% within 3 weeks
Priority III	65 to 79	90% within 6 weeks
Priority IV	50 to 64	80% within 3 months
Priority V	30 to 49	80% within 6 months
Priority VI	1 to 29	80% within 12 months
All Cases		Within 18 months

The Patient Assessment Tool produces an Assessment Score based on a patient’s situation. The Assessment Score is combined with the Urgency Profile for the procedure to generate an Urgency Score. The Urgency Score determines the Priority Level of the patient. The Priority Level determines the Target Time Frame for surgery.

Surgical priority levels are defined at http://www.sasksurgery.ca/target_timeframes.htm.

Contributing Factors

As cases waiting more than 18 months for surgery are treated, the percentage of cases meeting the Target Time Frame for Priority Level VI may go down until the backlog of these long waiters is cleared.

Results for regions reporting a low volume of surgeries should be viewed with caution, as the rates are volatile.

Impact on Other Indicators

To be determined.

Potential for Action and Influence

The goal of Saskatchewan Health is to increase the volumes of medically necessary procedures where patients are waiting excessively long times for surgery, in addition to managing wait lists in a more efficient manner in order to reduce the maximum wait time.

The values of this indicator can be improved by using information from the surgical registry to order patients appropriately according to their level of urgency and the time that they have already waited for surgery.

When patients in Priority Levels V and VI jump the queue and get their surgery within less than three months, they take the spot of an urgent patient who needed to have their surgery performed quickly. This queue jumping also causes other Priority Level V and VI patients to wait longer for surgery.

Managing patients to the Target Time Frames for Priority Levels II to IV ensures that patients with an urgent need for surgery get done in a timely fashion.

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For example, if surgeons that perform the same types of surgery can pool their patients so that the first available surgeon can treat the next longest waiting patient then maximum waits for surgery could be reduced. This would allow one queue rather than a separate queue for each surgeon. Another way of achieving the same effect would be for referrals to surgeons from the General Practitioners to be pooled so that patients are sent to surgeons with a shorter wait list.

Data Tables

Please see the corresponding section in the document “Performance Management Accountability Indicators: Data Tables”.

Technical Specification

Method of Calculation

Calculation

The number of surgeries performed within the Target Time Frame divided by the total number of surgeries of the given Priority Level performed, expressed as a percentage.

Numerator

The number of surgeries of the given Priority Level performed within the Target Time Frame. The time calculated is the number of days from the booking date to the date of surgery. The most recent booking date on the record is used.

Denominator

The total number of surgeries of the given Priority Level performed.

Inclusions / Exclusions

Inclusions:

- Surgeries performed on out-of-province residents in Saskatchewan facilities.
- Only surgeries that are determined to be in the given Priority Level are included in the calculation.
- All surgeries performed and recorded in the Saskatchewan Surgical Care Network (SSCN) Surgical Patient Registry, with the exception of day surgery cystoscopies performed under a local anaesthetic in St. Paul’s Hospital (Saskatoon).
- Patient unavailable dates have not been excluded from the wait times (please see the “Limitations” section below).
- The surgeries using funding targeted toward long waiting patients.
- The following facilities have reported surgery performed data to the Surgical Patient Registry in 2005/2006:
 - **Sun Country:** St. Joseph's Hospital (Estevan), Weyburn General Hospital
 - **Five Hills:** Moose Jaw Union Hospital
 - **Cypress:** Cypress Regional Hospital (Swift Current)
 - **Regina Qu'Appelle:** Regina General Hospital, Pasqua Hospital (Regina)
 - **Sunrise:** St. Peter's Hospital (Melville), Yorkton Regional Health Centre
 - **Saskatoon:** Saskatoon City Hospital, St. Paul's Hospital (Saskatoon), Royal University Hospital (Saskatoon)
 - **Heartland:** Kindersley Hospital, Rosetown and District Health Centre
 - **Kelsey Trail:** Melfort Hospital, Nipawin Hospital
 - **Prince Albert Parkland:** Big River Health Centre, Victoria Hospital (Prince Albert), Spiritwood and District Health Complex
 - **Prairie North:** Lloydminster Hospital, Northwest Health Facility (Meadow Lake), Battlefords Union Hospital.

Performance Management Accountability Indicators

Exclusions:

- Surgeries performed on Saskatchewan residents in out-of-province facilities.
- Surgeries performed outside of an operating room setting (e.g. in ambulatory care).
- Emergency surgeries.
- Day surgery cystoscopies performed under a local anaesthetic in St. Paul's Hospital (Saskatoon).
- Cases where the booking date is after surgery date resulting in a negative wait time are excluded. This is a data quality issue.
- Cases where the patient assessment tool has not been filled out are excluded. Reasons for the tool not being filled out include the lack of a patient assessment tool for non-cataract ophthalmology cases, lack of a mechanism to upload the results of the cardiac assessment tool, and the fact that some long waiting patients were not back-scored. All of these issues are being addressed.
- Hospitals that perform surgery in the operating room setting but are not yet reporting to the registry. Based on surgeries reported to the Discharge Abstract Database, these may include St. Elizabeth's Hospital (Humboldt), Tisdale Hospital, and Kamsack Hospital.

Data Source

Source

Saskatchewan Surgical Care Network (SSCN) Surgical Patient Registry.

Flow

The SSCN Surgical Patient Registry is a web based application that tracks the wait times and priority level for each surgery performed in the province. Data from each region are entered into the system and are stored in a central database maintained by the Health Information Solutions Centre, Saskatchewan Health. The smaller regions key the data directly into the database through a web based front end. Regina Qu'Appelle and Saskatoon upload the data into the registry from their surgery booking systems. For analysis purposes, it is best to wait about a month to allow for the majority of booking or surgery performed records to be entered. Analysts at Saskatchewan Health have access to all of the data and analysts in the regions have access to their own data.

Availability

Ongoing. The full fiscal year of data is available about one month after the end of the fiscal year.

Surgery performed data is generally available one month following the date of surgery.

Limitations

There are a few hospitals that perform surgery that are not yet reporting to the registry.

For a very small number of records (0.04% for Q1 and Q2 of 2005/2006), we are unable to calculate the wait time because the booking date is after the surgery performed date. An edit check for this problem has been implemented in the registry so the number of these errors has reduced to almost zero.

Unavailable dates are currently not removed from the wait time calculation. These dates are not reported in all regions, and in regions where they are reported, they have more of an effect on the shorter Target Time Frames. If unavailable dates were removed, then the time waited would appear to be shorter. This issue is presently under discussion in the SSCN subcommittees, and their recommendation will be reflected in future versions of the calculation methodology for this indicator.

A known issue with the patient assessment tools is the flag for confirmed or suspected cancer. If this is checked off then the patient is always placed in Priority Level II with a Target Time Frame of three weeks. This box will be put in a more prominent place on the patient assessment tool and guidelines will be developed to ensure that it is filled out appropriately.

Performance Management Accountability Indicators

Reports are run from a copy of the live database (rather than a final year end file) so numbers are subject to slight changes as records are added and corrected.

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- Saskatchewan Health. 2004. "Saskatchewan Comparable Health Indicators Report 2004". (www.health.gov.sk.ca/mc_comparable_hlth_indicators_04.html)
- Saskatchewan Surgical Care Network (SSCN) website. (www.sasksurgery.ca)
- Western Canada Wait List Project website. (www.wcwl.org)

Indicator Name Reference List

- **Surgical volumes and the percentage of cases completed within benchmarked time frames**
 - Accountability Document (2003/2004)
- **Percentage of cases completed within Saskatchewan's target time frames for surgical services**
 - Accountability Document (2004/2005)
- **Percentage of surgery completed within 18 months**
 - Performance Management Dashboard (2004/2005)
- **Percentage of surgical cases completed within 18 months**
 - Accountability Document (2005/2006)
 - Performance Management Accountability Indicators (March 16, 2005 and earlier versions)
- **Percentage of surgical cases completed within 6 months, 12 months, and 18 months**
 - Performance Management Accountability Indicators (March 31 and May 21, 2005 versions)
- **Percent of Priority Level II cases completed within 3 weeks**
Percent of Priority Level IV cases completed within 3 months
Percent of Priority Level VI cases completed within 12 months
 - Performance Management Dashboard (2005/2006)

- **Percentage of Priority Level II, IV and VI surgical cases completed within Saskatchewan's Target Time Frames**
 - Performance Management Accountability Indicators (April 21 and May 26, 2006 versions)
- **Percentage of Priority Level I, II, III and IV surgical cases completed within target time frames**
 - Accountability Document (2006/2007 onwards)
 - Performance Management Accountability Indicators (next version)
 - Performance Management Dashboard (2006/2007 onwards)

MEDICAL/PHYSICIAN SERVICES – SPECIALISTS

No active indicators.

INSTITUTIONAL SUPPORTIVE CARE

Institutional Supportive Care includes long-term care.

Average wait time between approval for placement and placement for institutional supportive care services

Section:	Program-Specific Indicators
Sub-Section:	Institutional Supportive Care
Category:	Health System Performance
Type of Measure:	Efficiency
Status:	Active (since 2005/2006)
Definition:	Average time in days from approval for client placement to placement (admission) for institutional supportive care services for a specified time period (e.g. fiscal year).

Template Content Last Changed: April 21, 2006

Interpretation

Rationale and Notes for Interpretation

Temporal access or waiting time is an important dimension of accessibility. Delays in service could have quality of life consequences for clients and result in both clients and families being discouraged from future care seeking behaviour.

Information is to initial placement, not permanent bed. As the system in Saskatchewan is on a residence of choice system, the time to permanent placement could be much longer than the time to the initial placement.

Targets / Benchmarks

To be determined.

Contributing Factors

- Client need (the system addresses the greatest assessed need first).
- Service volumes in long term care and home care. Home care support may be enhanced temporarily, or the client may be placed in respite or a personal care home temporarily until a bed is available.
- Vacancy rate (availability of beds as a result of deaths or other reasons).
- Social stability and support.
- Spousal and family support.

Impact on Other Indicators

Alternate Level of Care (ALC) days for hospital inpatients waiting for placement in an institutional supportive care facility.

Potential for Action and Influence

To be determined.

Data Tables

Please see the corresponding section in the document "Performance Management Accountability Indicators: Data Tables".

Technical Specification

Method of Calculation

Calculation

The total number of days wait from approval for client placement to initial placement for institutional supportive care service for all clients registered for a specified time period divided by the total number of clients admitted to initial placement for institutional supportive care services for that time period.

Numerator

The total number of days wait from approval for client placement (i.e. the client has met the criteria for admission to an institutional supportive care facility, and is placed on the waiting list) to initial placement for institutional supportive care service for all clients registered for a specified time period.

Denominator

The total number of clients admitted to initial placement for institutional supportive care services for a specified time period.

Inclusions / Exclusions

Inclusions:

- To be determined.

Exclusions:

- To be determined.

Data Source

Source

Procura, Health Information Solutions Centre (HISC), Saskatchewan Health. Presently, a special report must be written to capture this information or data is requested from the regions.

Flow

To be determined.

Availability

Annually.

Data is currently not available.

Limitations

Information is to initial placement, not a permanent bed. Since Saskatchewan has a “residence of choice” system, the time to permanent placement could be much longer than the time to the initial placement.

References

To be determined.

Indicator Name Reference List

- **Timely access to services, measured by (2) average length of time waiting for placement after placement has been approved**
 - Accountability Document (2003/2004)
- **Timely access to institutional supportive care services, measured by (2) average length of time waiting for placement after placement has been approved**
 - Accountability Document (2004/2005)
- **Average wait time between approval for placement and placement for institutional supportive care services**
 - Accountability Document (2005/2006 onwards)
 - Performance Management Accountability Indicators (all versions to date)

Case mix index for institutional supportive care facilities

Section: Program-Specific Indicators

Sub-Section: Institutional Supportive Care

Category: Community and Health System Characteristics

Type of Measure: Appropriateness

Status: Active (2005/2006)

Definition: The average case-mix index (CMI) of institutional supportive care residents in regional health authority (RHA) facilities at a specific point in time (e.g. the end of the quarter).

Template Content Last Changed: April 21, 2006

Interpretation

Rationale and Notes for Interpretation

It is desirable that admission to institutional supportive care should be restricted to heavier care residents, defined as those whose needs cannot be otherwise met in the community. As such, case mix index of the facility will indicate whether the appropriateness of admissions is being met.

This indicator taken with “Case mix index for supportive home care services” should present a picture of a continuum of service: residents with lower care level needs being appropriately served via home care services, and residents with higher needs receiving services in institutional supportive care facilities.

The Minimum Data Set (MDS) / Resource Utilization Group (RUGs) assessment and classification system is used to assess, classify, and plan for the care of long term care residents according to their level of functioning and care needs. The Resident Assessment Instrument (RAI) is the overall tool that includes assessment, care planning, program planning and RUGs classification, all of which lead to quality resident outcomes. The main components of the RAI (version 2.0) are:

- the **Minimum Data Set (MDS)** – the comprehensive assessment with questions and observations designed to gather information about the functional, psychosocial, and environmental needs of the resident;
- **Resident Assessment Protocols (RAPS)** – triggers that identify potential resident needs for staff to investigate further;
- **Resource Utilization Groups (RUGs)** – seven major groupings of residents determined according to need, each of which is further broken down based on the influence of activities of daily living (ADLs), treatments, depression and nursing rehabilitation; and,
- **Quality Indicators (QIs)** – indicators used to evaluate how effectively care is being provided within a special care home, identifying strengths in the care provided and areas needing improvement.

A full MDS assessment is started upon admission (the exception being stays that are expected to be less than 14 days). A new full assessment is also done every year after the assessment reference date, and within 14 days of a significant change in resident status (e.g. after a stay in an acute care facility). A shorter quarterly MDS assessment should be completed every three months after the assessment reference date.

The seven major RUGs categories are: Special Rehabilitation, Extensive Services, Special Care, Clinically Complex, Impaired Cognition, Behaviour Problems, and Reduced Physical Function. These seven categories are further broken down into 44 groups. The specific RUGs score for a resident is generated by the MDS software application, based on the (full or quarterly) assessment.

A case-mix index (CMI) is the relative cost or weighting of resource use in a particular group compared to a base level, typically the average cost or resource use in the overall population (thus, the value 1 represents the average CMI for the population). In the case of RUGs, the CMI is the relative cost of caring for the average supportive care resident within a particular RUGs group compared to the average supportive care resident in the population. For example, a CMI of 1.1 for RUGs score “XYZ” means that the cost of caring for the average resident classified as “XYZ” is 10% more than the cost of caring for the average supportive care resident. ***The CMIs used in this indicator are the “Research CMIs” generated by the MDS software application.*** These are based on staff time measurement studies done in U.S. skilled nursing facilities and nursing homes in 1995 and 1997, and the CMI value 1 therefore refers to the average resident in this population. Saskatchewan’s average CMI is approximately 0.77.

All institutional supportive care facilities in Saskatchewan and all acute care facilities with long term care beds have fully implemented MDS/RUGs (the only exception is two convents in Saskatoon).

Targets / Benchmarks

To be determined.

Contributing Factors

- Availability of other services.
- Social stability – spousal and/or family support.
- Local demographic breakdown.
- Treatment / assessment style.

Impact on Other Indicators

To be determined.

Potential for Action and Influence

To be determined.

Data Tables

Please see the corresponding section in the document “Performance Management Accountability Indicators: Data Tables”.

Technical Specification

Method of Calculation

Calculation

For each facility, the average CMI is calculated as part of the “Casemix Report”, and is the sum of the CMIs generated for institutional supportive care residents in that facility divided by the number of institutional supportive care residents in that facility.

For each regional health authority (RHA), the average CMI is the sum of the average facility CMIs divided by the number of facilities in that RHA (i.e. the average of the average facility CMIs).

For Saskatchewan, the average CMI is the sum of the average RHA CMIs divided by the number of RHAs (i.e. the average of the average RHA CMIs).

Numerator

For each facility, the sum of the CMIs generated for institutional supportive care residents in that facility as of their last MDS assessment (full or quarterly) before the reporting date (e.g. the end of the quarter).

Denominator

For each facility, the total number of institutional supportive care residents in that facility who had an MDS assessment (full or quarterly) before the reporting date (e.g. the end of the quarter).

Inclusions / Exclusions

Inclusions:

- Institutional supportive care residents who had an MDS assessment (full or quarterly) before the reporting date (e.g. the end of the quarter).

Performance Management Accountability Indicators

Exclusions:

- Institutional supportive care residents who did not have any MDS assessment before the reporting date (e.g. the end of the quarter).

Data Source

Source

“Casemix Report” (MDS 2.0 software application) generated by each facility

The MDS 2.0 Multidimensional Database is currently being developed and implemented by the Health Information Solutions Centre (HISC), Saskatchewan Health. This system will be the source for this indicator in the future.

Flow

Each facility generates a series of reports (including the “Casemix Report”) quarterly, within two weeks of the end of the quarter. These are point-in-time or “snapshot” reports, and are based on the last assessment (full or quarterly) before the date the report was generated. The reports are submitted to the Community Care Branch (CCB), Saskatchewan Health, where information is compiled at the regional and provincial level.

Availability

Quarterly. Data is available within two weeks of the end of the quarter.

Limitations

Not all institutional supportive care residents have had an MDS assessment.

The reports are snapshots in time and cannot be combined.

The calculation methodology for the average RHA CMI and the Saskatchewan average CMI was dictated by the information that was available from the “Casemix Report”. Ideally, the average CMI for an RHA would be calculated as the sum of the CMIs generated for institutional supportive care residents in that RHA (regardless of facility) as of their last MDS assessment (full or quarterly) before the reporting date divided by the total number of institutional supportive care residents in that RHA who had an MDS assessment (full or quarterly) before the reporting date, instead of the average of the average facility CMIs for that region. A similar calculation would be used for the Saskatchewan average CMI. These refinements to the methodology will be made following implementation of the MDS 2.0 Multidimensional Database.

References

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Indicator Name Reference List

- **Admission of primarily heavier care residents to long-term care, measured by (2) distribution of levels of care of total long term care population, by RHA**
 - Accountability Document (2003/2004)
- **Admission to institutional supportive care of primarily heavier care residents, defined as those whose needs can not otherwise be met in the community, measured by (2) distribution of levels of care of total long term care population by health region**
 - Accountability Document (2004/2005)
- **Distribution of level of care of institutional supportive care residents**
 - Performance Management Accountability Indicators (February 16 and 18, 2005 versions)
- **Case mix index for institutional supportive care facilities**
 - Accountability Document (2005/2006 onwards)
 - Performance Management Accountability Indicators (March 16, 2005 version onwards)

Prevalence of pressure sores: percentage of institutional supportive care residents with pressure sores

Section: Program-Specific Indicators

Sub-Section: Institutional Supportive Care

Category: Health System Performance

Type of Measure: Quality

Status: Active (since 2004/2005)

Definition: Institutional supportive care residents who are reported to have pressure sores or skin ulcers expressed as a percentage of the total number of institutional supportive care residents at a specific point in time (e.g. the end of the quarter).

Template Content Last Changed: April 21, 2006

Interpretation

Rationale and Notes for Interpretation

The prevalence of pressure sores is a commonly used quality indicator in the literature, and nationally.

Total number of pressure sores should be interpreted with caution. The presence of Grade 1 sores is generally high across regions. It is more relevant to examine the number of Grade 3 and 4 pressure sores as they are much more severe in nature. Grades 1 and 2 are warning signs.

Performance Management Accountability Indicators

Grades of Pressure Sores Due to Any Cause	
Grade 1	A persistent area of skin redness (without a break in skin) that does not disappear when pressure is relieved.
Grade 2	A partial thickness loss of skin layers that presents clinically as an abrasion, blister, or shallow crater.
Grade 3	A full thickness of skin is lost, exposing the subcutaneous tissues. Presents as a deep crater with or without undermining adjacent tissue.
Grade 4	A full thickness of skin and subcutaneous tissue is lost, exposing muscle or bone.

In addition, some residents may have been admitted with pressure sores, or return from an acute care stay with pressure sores. Thus, the presence of pressure sores may not necessarily be indicative of the quality of care being provided in an institutional supportive care facility.

The Minimum Data Set (MDS) / Resource Utilization Group (RUGs) assessment and classification system is used to assess, classify, and plan for the care of long term care residents according to their level of functioning and care needs. The Resident Assessment Instrument (RAI) is the overall tool that includes assessment, care planning, program planning and RUGs classification, all of which lead to quality resident outcomes. The main components of the RAI (version 2.0) are:

- the **Minimum Data Set (MDS)** – the comprehensive assessment with questions and observations designed to gather information about the functional, psychosocial, and environmental needs of the resident;
- **Resident Assessment Protocols (RAPS)** – triggers that identify potential resident needs for staff to investigate further;
- **Resource Utilization Groups (RUGs)** – seven major groupings of residents determined according to need, each of which is further broken down based on the influence of activities of daily living (ADLs), treatments, depression and nursing rehabilitation; and,
- **Quality Indicators (QIs)** – indicators used to evaluate how effectively care is being provided within a special care home, identifying strengths in the care provided and areas needing improvement.

A full MDS assessment is started upon admission (the exception being stays that are expected to be less than 14 days). A new full assessment is also done every year after the assessment reference date, and within 14 days of a significant change in resident status (e.g. after a stay in an acute care facility). A shorter quarterly MDS assessment should be completed every three months after the assessment reference date. Questions referring to pressure sores and skin ulcers are found in Section M “Skin Condition” of the assessment.

All institutional supportive care facilities in Saskatchewan and all acute care facilities with long term care beds have fully implemented MDS/RUGs (the only exception is two convents in Saskatoon).

Targets / Benchmarks

To be determined.

Contributing Factors

- Institutional supportive care facility staff training and processes:
 - Wound assessment
 - Prevention strategies.
- Immobility.
- Incontinence.
- Decreased sensory perception.

Performance Management Accountability Indicators

- Poor nutrition.
- Peripheral vascular diseases.
- Clients taking sedative medications are more likely to present with extremely severe ulcers with necrotic tissue, pressure ulcers in multiple sites, and the largest and deepest ulcers.
- Recent acute care discharge.

Impact on Other Indicators

To be determined.

Potential for Action and Influence

To be determined.

Data Tables

Please see the corresponding section in the document "Performance Management Accountability Indicators: Data Tables".

Technical Specification

Method of Calculation

Calculation

The number of institutional supportive care residents who are reported to have pressure sores or skin ulcers divided by the number of institutional supportive care residents, expressed as a percentage.

Numerator

The number of institutional supportive care residents who were reported to have pressure sores or skin ulcers as of their last MDS assessment (full or quarterly) before the reporting date (e.g. the end of the quarter).

Denominator

The total number of institutional supportive care residents who had an MDS assessment (full or quarterly) before the reporting date (e.g. the end of the quarter).

Inclusions / Exclusions

Inclusions:

- Institutional supportive care residents who had an MDS assessment (full or quarterly) before the reporting date (e.g. the end of the quarter).

Exclusions:

- Institutional supportive care residents who did not have any MDS assessment before the reporting date (e.g. the end of the quarter).

Data Source

Source

"Clinical Report" (MDS 2.0 software application) generated by each facility

The MDS 2.0 Multidimensional Database is currently being developed and implemented by the Health Information Solutions Centre (HISC), Saskatchewan Health. This system will be the source for this indicator in the future.

Performance Management Accountability Indicators

Flow

Each facility generates a series of reports (including the “Clinical Report”) quarterly, within two weeks of the end of the quarter. These are point-in-time or “snapshot” reports, and are based on the last assessment (full or quarterly) before the date the report was generated. The reports are submitted to the Community Care Branch (CCB), Saskatchewan Health, where information is compiled at the regional and provincial level.

Availability

Quarterly. Data is available within two weeks of the end of the quarter.

Limitations

Not all institutional supportive care residents have had an MDS assessment.

It should be noted that skin ulcers are not always related to pressure sores and are not always an indicator of quality of care.

The reports are snapshots in time and cannot be combined. Also, all patients with pressure sores or skin ulcers are represented, not just new cases.

References

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- Wounds1.com. 2002. “Risk factors for pressure ulcers”. Wound News: January 22, 2002. (www.wounds1.com/news/tech.cfm/5/1)

Indicator Name Reference List

- **Provision of quality care to long term care residents, measured by prevalence of pressure sores**
 - Accountability Document (2003/2004)
- **Provision of adequate care to long term care residents, measured by prevalence of pressure sores**
 - Accountability Document (2004/2005)
- **Prevalence of pressure sores in institutional supportive care residents**
 - Performance Management Accountability Indicators (February 16 and 18, 2005 versions)
- **Prevalence of pressure sores: percentage of institutional supportive care residents with pressure sores**
 - Accountability Document (2005/2006 onwards)
 - Performance Management Accountability Indicators (March 16, 2005 version onwards)

HOME-BASED SUPPORTIVE CARE

Average wait time between assessment and commencement of supportive home care services

Section:	Program-Specific Indicators
Sub-Section:	Home-Based Supportive Care
Category:	Health System Performance
Type of Measure:	Efficiency
Status:	Active (since 2005/2006)
Definition:	Average time in days from supportive home care assessment to service commencement for a specified time period.

Template Content Last Changed: April 21, 2006

Interpretation

Rationale and Notes for Interpretation

Temporal access or waiting time is an important dimension of accessibility. Delays in service could have quality of life consequences for clients, and result in both clients and families being discouraged from seeking future care.

Targets / Benchmarks

To be determined.

Contributing Factors

- Service volumes.
- Client preference.
- Level of need.
- Social stability and support.
- Spousal / family support.

Impact on Other Indicators

To be determined.

Potential for Action and Influence

To be determined.

Data Tables

Please see the corresponding section in the document "Performance Management Accountability Indicators: Data Tables".

Technical Specification

Method of Calculation

Calculation

The total number of days wait from assessment to supportive home care service commencement for all clients registered for a specified time period divided by the total number of supportive home care clients assessed for that time period.

Numerator

The total number of days wait from assessment to supportive home care service commencement for all clients registered for a specified time period.

Denominator

The total number of supportive home care clients assessed for a specified time period.

Inclusions / Exclusions

Inclusions:

- To be determined.

Exclusions:

- Clients assessed and denied service.

Data Source

Source

Procura, Health Information Solutions Centre (HISC), Saskatchewan Health. At present, a special report would have to be written to access this data, or data must be requested from the regions.

Flow

To be determined.

Availability

Annually.

Data is currently not available.

Limitations

To be determined.

References

To be determined.

Indicator Name Reference List

- **Average length of time from assessment of need to commencement of service**
 - Accountability Document (2003/2004)

- **Timely access to home-based supportive services, as measured by (2) average length of time from assessment of need to commencement of service**
 - Accountability Document (2004/2005)
- **Average wait time between assessment and commencement of supportive home care services**
 - Accountability Document (2005/2006 onwards)
 - Performance Management Accountability Indicators (all versions to date)

POPULATION HEALTH SERVICES

Population Health Services includes immunization, public health inspection, health promotion, communicable disease control, public health nutrition, and dental education.

Percentage of eligible population receiving recommended immunization at second birthday

Section: Program-Specific Indicators

Sub-Section: Population Health Services

Category: Health System Performance

Type of Measure: Output

Status: Active (since 2004/2005)

Definition: Percentage of eligible population receiving immunization at second birthday refers to the percentage of children who complete the recommended primary immunizations against diphtheria, pertussis (whooping cough), tetanus, haemophilus influenza B, polio, measles, mumps and rubella before or on their second birthday.

Template Content Last Changed: May 26, 2006

Interpretation

Rationale and Notes for Interpretation

Immunization rates are a reliable indicator of prevention. Immunization data facilitates the control and elimination of vaccine preventable diseases in Canada by ensuring the provision of information and knowledge necessary to achieve the best possible immunization coverage for Canadians. Vaccine-preventable diseases have certain attributes that make them very suitable candidates for clearly defined national goals and targets: currently existing control programs of demonstrated effectiveness, measurable outcomes, a clear linkage of resources with strategies, and indicators for surveillance already in place.

Children are considered up-to-date if they have received an antigen count of four (4) by their second birthday for diphtheria, pertussis (whooping cough), tetanus, haemophilus influenza B and polio. For measles, mumps and rubella, up-to-date entails two (2) antigens.

Immunization rates provide information on the extent to which preventive measures are in place and being utilized to control life-threatening diseases. However, the percentage of the eligible population

Performance Management Accountability Indicators

receiving immunization reflects more than access to, and availability of, appropriate health care. The decision on whether or not to receive an immunization can be influenced by socio-cultural conditions, educational attainment, and the economic environment. As such, increasing immunization rates are likely to require more than enhanced availability / accessibility of health services. Data quantity and quality may affect how accurately the immunization rate reflects true immunization coverage (see "Limitations" under "Technical Specification").

Targets / Benchmarks

To be determined (formal process is ongoing).

Contributing Factors

- **Postnatal educators:** Amount and quality of information parents receive on immunization.
- **Maternal educational status:** Lower educational status of the mother has been significantly associated with under-immunization rates.
- **Clinic operational conditions:** Child health clinic scheduling, public health nurse to child / family ratios, availability of immunization records, and time to complete clinical tasks have been found to have a significant impact on the likelihood a child would receive an immunization for which they are eligible.
- **Access to care:** Immunization disparities may exist for children from lower income backgrounds, with English as a second language, and in communities where resident Public Health Nurse (PHN) services are not available.
- **Mobility:** Children may move during their preschool years between jurisdictions, which decreases the likelihood of receiving the recommended doses within the recommended time intervals, thus affecting the coverage rate.
- **Current anti-immunization movements:** While it is not common in Saskatchewan yet, there are strong movements nationally and internationally against immunization often supported by alternative medicine providers. When these attitudes take hold in a community, immunization rates can drop as has been seen in Britain.
- **Access to technical supports:** Adequate computer technology for use in the service delivery area at a local level can impact the ability for regions to use and accurately record immunization information.

Impact on Other Indicators

Increases in immunization rates can lead to the potential eradication of several debilitating and life-threatening diseases such as measles, bacterial meningitis, invasive meningococcal disease, etc. In the long term, enhanced immunization that results in reduced prevalence of these diseases can decrease morbidity and mortality in high-risk population groups, such as the very young.

Potential for Action and Influence

To be determined (following the determination of targets / benchmarks).

Data Tables

Please see the corresponding section in the document "Performance Management Accountability Indicators: Data Tables".

Technical Specification

Method of Calculation

Calculation

The number of children registered in the Saskatchewan Immunization Management System (SIMS) and up-to-date for diphtheria, pertussis (whooping cough), tetanus, haemophilus influenza B, polio, measles, mumps, and rubella at second birthday divided by the number of children registered in SIMS who had a second birthday in the reporting period, expressed as a percentage.

Numerator

The number of children completing recommended immunizations before or on the date of the child's second birthday, whose immunizations are entered into the computerized immunization registry system, currently known as SIMS.

Denominator

The total number of children who have attained the age of two in the specified reporting period and are registered in SIMS.

Inclusions / Exclusions

Inclusions:

- Children who received services from the Regional Health Authority (RHA) and are registered in SIMS.

Exclusions:

- Children whose immunization records have not been entered into SIMS, including those receiving immunization from First Nations agencies, or arriving from outside the province or country and not having yet accessed RHA immunization services.

Data Source

Source

Saskatchewan Immunization Management System (SIMS), Saskatchewan Health.

The frequency of reporting will be on a continual basis.

Flow

Immunizations are primarily provided by Public Health Nurses (PHNs). Immunization data are recorded on both an individual client record as well as an electronic entry into a computerized immunization database (SIMS). Services provided by other health care providers such as physicians are submitted to the RHA and are entered into SIMS. Aggregate information are available on a regional and provincial basis to generate coverage rate reports.

Availability

Annually. Data is available three months after the end of the reporting period.

Limitations

There are several issues that impact data in SIMS. A limitation of the system is a lack of information on First Nations children who are immunized on reserve. Immunizations that occur off reserve are captured in the system, but on reserve immunizations, the majority of which apply to children younger than school age, are not available. Currently, there are discussions underway to integrate immunizations delivered on reserve by First Nations agencies into SIMS.

Another limitation is the ability to produce completely accurate coverage rates for vaccinations, due to the denominator data used. The denominator data are the total number of immunization records registered in

Performance Management Accountability Indicators

SIMS. This excludes those children who reside within the geographical RHA boundary, such as on reserve, and receive immunizations through First Nations agencies. For this reason, children who are mobile from one RHA to the next or between RHAs and First Nations communities may influence regional coverage rates.

There is also the ability for Public Health Nurses at the regional level to update address information, including postal codes, at the time of the immunization. This information may be different from address information available in the Person Registry System (PRS), from which demographic information comes.

References

National Advisory Committee on Immunization (NACI). 2002. Canadian Immunization Guide (6th Edition). Ottawa, Ontario: Health Canada.

Indicator Name Reference List

- **Vaccine coverage rates for two-year old cohort**
 - Accountability Document (2003/2004 and 2004/2005)
- **Percentage of eligible population receiving immunization at second birthday (vaccine coverage rate)**
 - Accountability Document (2005/2006)
 - Performance Management Accountability Indicators (March 16, 2005 version and earlier)
- **Percentage of eligible population receiving recommended immunization at second birthday**
 - Performance Management Accountability Indicators (March 31 and May 21, 2005 versions)
- **Percentage of eligible population receiving recommended immunization at second birthday**
 - Accountability Document (2006/2007 onwards)
 - Performance Management Accountability Indicators (April 21, 2006 version onwards)

Percentage of facilities in compliance with *The Tobacco Control Act* in the category that includes: billiard halls / bingo establishments / bowling centres / casinos / restaurants / taverns

Section: Program-Specific Indicators

Sub-Section: Population Health Services

Category: Non-Medical Determinants of Health

Type of Measure: Output

Status: Active (since 2005/2006)
Quarterly Performance Management Report (“Dashboard”) measure (since 2005/2006)

Definition: The percentage of facilities inspected and in compliance with *The Tobacco Control Act* in a given period.

Template Content Last Changed: April 21, 2006

Interpretation

Rationale and Notes for Interpretation

Public health regulatory programs commonly use routine on-site inspections to determine compliance with regulations. While inspection frequencies vary among jurisdictions, Saskatchewan Health's longstanding objective has been to conduct at least one annual inspection of licensed facilities.

While most countries administer public safety and health regulations, there is very little research exploring the effectiveness and efficiency of routine inspection programs. However, because infractions and faulty practices are uncovered and remedied through the inspection process, it is reasonable to conclude that without such a program, infractions and practices will be left unattended resulting in increased risk smoking in enclosed public places.

Targets / Benchmarks

90% compliance

Contributing Factors

Inspections for *The Tobacco Control Act* are, for the most part, done during other routine inspections by public health inspectors for food safety. Public Health Inspectors (PHIs) also respond to complaints about violations of *The Tobacco Control Act*. The number of inspections will depend on the number of routine inspections and the number of complaints received by PHIs.

Impact on Other Indicators

Environmental tobacco smoke exposure increases the likelihood of lung cancer and respiratory disease in non-smokers. Smoking is a risk factor for heart disease and strokes. Environmental barriers to smoking such as banning smoking in enclosed public places may decrease the frequency of smoking in smokers.

Potential for Action and Influence

Inspections for *The Tobacco Control Act* will occur during routine inspection of facilities for other purposes (e.g. *The Public Health Act*). For those facilities not routinely inspected by public health inspectors, compliance will be monitored by responding to complaints. Any facilities not in compliance will be issued tickets. Tickets are an effective means of gaining and maintaining compliance.

The Tobacco Control Act also allows for ticketing of patrons. While not captured by this indicator, this is also an effective means to support and influence compliance in facilities.

Data Tables

Please see the corresponding section in the document "Performance Management Accountability Indicators: Data Tables".

Technical Specification

Method of Calculation

Calculation

Facilities inspected that are in compliance with the *Tobacco Control Act* in the category that includes: billiard halls / bingo establishments / bowling centres / casinos / restaurants / taverns as a percent of facilities inspected in a given time period (e.g. quarter, year).

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Numerator

The number of facilities in compliance with *The Tobacco Control Act* in the identified time period (e.g. quarter) in the category that includes: billiard halls / bingo establishments / bowling centres / casinos / restaurants / taverns.

Denominator

The total number of facilities inspected in the identified time period (e.g. quarter) under *The Tobacco Control Act* in the category that includes: billiard halls / bingo establishments / bowling centres / casinos / restaurants / taverns.

Inclusions / Exclusions

Inclusions:

- billiard halls / bingo establishments / bowling centres / casinos / restaurants / taverns
- Those facilities that have been investigated as a result of a complaint or routine inspection.

Exclusions:

- Facilities that are not inspected during the period or other facilities that are not in the above categories.

Source

Saskatchewan Environmental Health System (SEHS)

Flow

Data is entered as inspections are completed. Inspections can occur at anytime. Routine inspections are more likely in the fall and winter months.

Availability

Quarterly. Data is available three months after the end of the quarter.

Data is currently not available for 2005/2006 due to system implementation issues.

Limitations

As with other legislation, while 100% compliance is the goal, rarely is it achievable. Compliance will fluctuate based on shifting public attitudes, enforcement and personal practices by the public. Inspections may be impacted by other pressing issues/emergencies in the workloads of public health inspectors.

References

Government of Saskatchewan. 2004. *The Tobacco Control Act*.
(www.qp.gov.sk.ca/documents/english/Statutes/Statutes/t14-1.pdf)

Government of Saskatchewan. 2004. *The Tobacco Control Amendment Act*.
(www.qp.gov.sk.ca/documents/english/Chapters/2004/Chap-51.pdf)

Indicator Name Reference List

- **Percentage of facilities in compliance with *The Tobacco Control Act***
 - Performance Management Accountability Indicators (February 16 and 18, 2005 versions)
- **Percentage of facilities in compliance with *The Tobacco Control Act* in the category that collectively includes: billiard halls / bingo establishments / bowling centres / casinos / restaurants / taverns**
 - Performance Management Dashboard (2005/2006)

Performance Management Accountability Indicators

- **Percentage of facilities in compliance with *The Tobacco Control Act* in the category that includes: billiard halls / bingo establishments / bowling centres / casinos / restaurants / taverns**
 - Accountability Document (2003/2004 onwards)
 - Performance Management Accountability Indicators (March 16, 2005 version onwards)
 - Performance Management Dashboard (2006/2007 onwards)

Percentage of licensed or regulated facilities inspected each year (pursuant to *The Public Health Act*)

Section: Program-Specific Indicators

Sub-Section: Population Health Services

Category: Health System Performance

Type of Measure: Output

Status: Active (since 2005/2006)

[This indicator was Active in 2003/2004, but not in 2004/2005. It was included in 2003/2004 RHA Annual Reports]

Definition: The percentage of licensed or regulated facilities that are inspected each year (pursuant to *The Public Health Act, 1994*). These facilities include food premises (public eating establishments, bakeshops, slaughterhouses), itinerant-use accommodations, swimming pools and public water supplies. Routine inspections are conducted to ensure these facilities comply with the regulations.

Template Content Last Changed: April 21, 2006

Interpretation

Rationale and Notes for Interpretation

Public health regulatory programs commonly use routine on-site inspections to determine compliance with regulations. While inspection frequencies vary among jurisdictions, Saskatchewan Health's longstanding objective has been to conduct at least one inspection annually of licensed facilities. While public water supplies are not licensed, they are regulated (commencing in 2003) and will be inspected annually.

Targets / Benchmarks

Targets: 100%. Current benchmarks: 80-100%.

Contributing Factors

Factors that contribute to compliance related to licensed and regulated facilities include:

- Education, including training of operators.
- **Public expectation:** Complaints lodged by the public are a factor in motivating operators to comply.
- **Liability:** Operators may be motivated to comply in order to avoid lawsuits, should injury or death arise from their operations.

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- **Self regulation:** Some operators comply for no other reason than they wish to be law abiding.

Impact on Other Indicators

Routine annual inspections of food premises are expected to influence foodborne illness rates.

Potential for Action and Influence

If inspection rates continue to remain below target level (80-100% yearly) even when health regions are fully staffed, Saskatchewan Health will continue to work with regions by facilitating program reviews and assisting with developing policies that emphasize the need for higher inspection rates. A program review of the public health inspection program will be completed in 2006.

Data Tables

Please see the corresponding section in the document "Performance Management Accountability Indicators: Data Tables".

Technical Specification

Method of Calculation

Calculation

The number of licensed or regulated facilities inspected at least once annually divided by the total number of licensed or regulated facilities open during that time period, expressed as a percentage.

Numerator

The number of licensed or regulated facilities inspected during the fiscal year.

Denominator

Total number of licensed or regulated facilities open during the fiscal year.

Inclusions / Exclusions

Inclusions:

- Licensed and regulated facilities: food premises (public eating establishments, bakeshops, slaughterhouses), itinerant-use accommodations, swimming pools and public water supplies.

Exclusions:

- Facilities under First Nations or federal control – reserves, urban reserves (subject to agreement with RHA), Prince Albert National Park, RCMP Depot, Department of National Defence lands, etc.).

Data Source

Source

Saskatchewan Environmental Health System (SEHS), Saskatchewan Health (*starting 2005/2006*)
Public Health Inspector Information System (PHIIS), Saskatchewan Health (*2004/2005 and earlier*)

Flow

Data is entered into the system, and health regions extract data for their region.

Availability

Annually. Data is available three months after the end of the fiscal year.

Limitations

Regarding food premises, RHAs have moved to a risk based inspection system. Some facilities will no longer be required to be inspected annually. This will have a minimum effect on the annual inspection rate as the number of these facilities is expected to be low.

With new regulatory requirements (late 2002) for public water systems not regulated by Saskatchewan Environment, complete inspection rate information will only be available during 2004/2005.

While most countries administer public safety and health regulations, there is very little research exploring the effectiveness and efficiency of routine inspection programs, particularly from a communicable disease perspective. However, because infractions and faulty practices contributing to transmission of disease are uncovered and remedied through the inspection process, it is reasonable to conclude that without such a program, infractions and practices will be left unattended resulting in increased risk of disease transmission.

References

- Government of Saskatchewan. 2004. *The Public Health Act*.
(www.qp.gov.sk.ca/documents/english/Statutes/Statutes/p37.pdf)
- Government of Saskatchewan. 2005. *The Public Health Act, 1994*.
(www.qp.gov.sk.ca/documents/English/Statutes/Statutes/P37-1.pdf)

Indicator Name Reference List

- **Public Health Act regulated facilities**
 - Core Indicators for Progress & Results (2003/2004)
- **Percentage of licensed or regulated facilities that are inspected each year (pursuant to *The Public Health Act*)**
 - Accountability Document (2003/2004 and 2004/2005)
- **Percentage of licensed or regulated facilities inspected each year (pursuant to *The Public Health Act*)**
 - Accountability Document (2005/2006 onwards)
 - Performance Management Accountability Indicators (all versions to date)

Percentage of population (age 12 years and over) who are current (daily or occasional) smokers

Section: Program-Specific Indicators

Sub-Section: Population Health Services

Category: Non-Medical Determinants of Health

Type of Measure: Outcome

Status: Active (since 2003/2004)

Definition: Percentage of the population age 12 years and older by sex who report they are current smokers (daily smokers or occasional smokers).

Template Content Last Changed: May 26, 2006

Interpretation

Rationale and Notes for Interpretation

Tobacco use is the leading cause of preventable illness and death in Canada. Health Canada estimates that smoking is responsible for more than 45,000 deaths per year. It is estimated that approximately eight out of every 10 people who try smoking become habitual smokers. Sex differences are also highlighted. Teenaged girls are now more likely to smoke than adolescent boys, and if the increased rates of smoking among young women are not reversed, lung cancer rates among women will continue to climb.

The self-reported nature of the data must be borne in mind when interpreting the analysis. The potential for inaccuracy in rates of smoking exists due to the fact that the information was not verified by direct measures or independent sources. Furthermore, due to the cross-sectional nature of Canadian Community Health Survey (CCHS) data, inferences about causal relationships between smoking and other variables (with the exception perhaps of lung cancer where substantial evidence exists for causality) cannot be made.

Teen smoking rates for Saskatchewan were included in the "Saskatchewan Comparable Health Indicators Report 2004" (Saskatchewan Health, 2004). Please see pages 43 to 49 of the report and section 66-HLT of the report's technical specifications appendix for more information. Technical specifications can also be found in "Considerations for data production for reporting comparable health indicators in November 2004" (Performance Reporting Technical Working Group (PRTWG), 2004).

Please see "Appendix D – Canadian Community Health Survey (CCHS)" for more information on using and interpreting CCHS data.

Targets / Benchmarks

To be determined.

Contributing Factors

- **Prevalence of chronic conditions or special needs:** Reports from the Canadian Council on Social Development highlight that children and adolescents with chronic conditions report higher rates of tobacco use, and that children of younger ages with special needs were also more likely to have tried smoking.
- **Sex:** Female adolescents may use regular tobacco consumption as a means to cope with life stressors and socio-cultural expectations, and may be a target of tobacco advertising campaigns to a greater extent than boys.
- **Aboriginal status:** Age of onset for tobacco use is substantially younger among Aboriginal children in some communities.
- **Socio-economic status:** Low socio-economic status has been shown to increase the likelihood of engaging in risky health behaviours such as smoking.
- **Prevalence of other high-risk behaviours:** Smoking has been associated with other behaviours that pose a risk to health such as alcohol and drug consumption. Causal relationships cannot be inferred from these associations.
- Local factors may contribute to disparities in the distribution of smoking rates at the regional level.

Impact on Other Indicators

Smoking has well-documented relationships with several causes of mortality and morbidity:

- incidence and mortality rates from lung cancer are directly affected by tobacco use, as well as incidence of other respiratory diseases such as asthma;
- smoking is also a risk factor for heart disease and stroke, and differences in the incidence and mortality rates of both may be expected in smokers;

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- premature mortality rates (potential years of life lost) due to lung cancer or cardiovascular disease may also be influenced since smoking is increasing in younger ages who predominantly continue smoking into adulthood;
- physical activity rates tend to be lower in smokers than non-smokers;
- self-reported health has also been consistently linked with smoking, with daily smokers tending to have lower odds of reporting excellent or very good health; and,
- environmental tobacco smoke exposure increases the likelihood of lung cancer and respiratory diseases in non-smokers.

Potential for Action and Influence

To be determined.

Data Tables

Please see the corresponding section in the document “Performance Management Accountability Indicators: Data Tables”.

Technical Specification

Method of Calculation

Calculation

Estimated number of individuals age 12 years and over by sex who report currently smoking (daily smoking or occasional smoking) divided by the total population age 12 years and over, expressed as a percentage (with weighting adjusted to reflect non-response).

Numerator

Estimated number of individuals age 12 years and over by sex who report currently smoking (daily smoking or occasional smoking).

Denominator

Total population age 12 years and over.

Inclusions / Exclusions

Exclusions:

- Survey frame exclusions apply (persons living on First Nations Reserves and Crown Lands, full-time members of the Canadian Armed Forces, residents of certain remote regions, and children under 12 years of age are not sampled).

Data Source

Source

Canadian Community Health Survey (CCHS) – Saskatchewan Share File

Flow

Please see “Appendix D – Canadian Community Health Survey (CCHS)” for more information.

Availability

The survey is conducted bi-annually, and data is usually available within one year of survey completion. There are currently two years of data available: Cycle 1.1 (2000/2001) and Cycle 2.1 (2003).

Limitations

Self-reports of smoking behaviour are inherently open to estimation errors due to either an under-reporting or over-reporting of behaviour. There is some suggestion that respondents may partially modify their perceptions to reflect greater social desirability, or simply may be unable to accurately determine the regularity of their smoking habit.

Please see "Appendix D – Canadian Community Health Survey (CCHS)" for more information on limitations.

References

- Performance Reporting Technical Working Group (PRTWG). 2004. "Considerations for data production for reporting comparable health indicators in November 2004". (secure.cihi.ca/cihiweb/en/downloads/Considerations_for_Data_Production_November_15_ENG_FINAL.pdf)
- Saskatchewan Health. 2004. "Saskatchewan Comparable Health Indicators Report 2004". (www.health.gov.sk.ca/mc_comparable_hlth_indicators_04.html)
- Tobacco Control Liaison Committee of the Federal Provincial Territorial Advisory Committee on Population Health and Health Security. 2003. "The National Strategy: Moving Forward – The 2003 Progress Report on Tobacco Control". Ottawa, Ontario: Health Canada.
- U.S. Department of Health and Human Services. 1994. "Youth and Tobacco: Preventing Tobacco Use Among Young People. A report of the Surgeon General". Atlanta, Georgia: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health.
- U.S. Department of Health and Human Services. 2000. Healthy People 2010: Understanding and Improving Health, 2nd ed. Washington, DC: U.S. Government Printing Office.
- Working Group on Tobacco Control of the Federal Provincial Territorial Advisory Committee on Population Health. 2001. "The National Strategy: Moving Forward – The 2001 Federal Provincial Territorial Progress Report on Tobacco Control". Ottawa, Ontario: Ministry of Public Works and Government Services Canada.
- Working Group on Tobacco Control of the Federal Provincial Territorial Advisory Committee on Population Health. 2002. "The National Strategy: Moving Forward – The 2002 Progress Report on Tobacco Control". Ottawa, Ontario: Communications Canada.

Indicator Name Reference List

- **Smoking rates by age and sex**
 - Accountability Document (2003/2004 [*Schedule 2: Health Status and Outcome Indicators*] and 2004/2005 [*Schedule 4: Health Status and Outcome Indicators section*])
 - Core Indicators for Environmental Scan (2003/2004)
 - Performance Management Accountability Indicators [section 3.1.1.7.] (February 16 and 18, 2005 versions)
- **Smoking rates by age and sex (including youth 12 to 19)**
 - Accountability Document (2003/2004 [*Schedule 4: Program Specific Expectations and Indicators – Population Health Services section*])
- **Smoking rates by age and gender (including youth 12 to 19)**
 - Accountability Document (2004/2005 [*Schedule 2 (II): Program-Specific Expectations – Population Health Services section*])

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- **Smoking rates by sex (age 12 years and over)**
 - Performance Management Accountability Indicators [section 2.2.6.4.] (February 16 and 18, 2005 versions)
- **Percentage of population (age 12 years and over) who are current, daily or occasional smokers (smoking rate)**
 - Accountability Document (2005/2006 and 2006/2007)
 - Performance Management Accountability Indicators (March 16, 2005 through April 21, 2006 versions)
- **Percentage of population (age 12 years and over) who are current (daily or occasional) smokers**
 - Performance Management Accountability Indicators (May 26, 2006 version onwards)

Influenza immunization rate per 100 population (age 65 years and over)

Section: Program-Specific Indicators

Sub-Section: Population Health Services

Category: Health System Performance

Type of Measure: Outcome

Status: Active (since 2003/2004)

[Although Active since 2003/2004, this indicator did not appear in the 2003/2004 and 2004/2005 Accountability Documents.]

Definition: The percentage of adults age 65 years and older who received a flu shot during the flu season (September to March).

Template Content Last Changed: April 21, 2006

Interpretation

Rationale and Notes for Interpretation

Immunization rates are a reliable indicator of prevention. Immunization data facilitates the control and elimination of vaccine preventable diseases in Canada by ensuring the provision of information and knowledge necessary to achieve the best possible immunization coverage for Canadians. Vaccine-preventable diseases have certain attributes that make them very suitable candidates for clearly defined national goals and targets: currently existing control programs of demonstrated effectiveness, measurable outcomes, a clear linkage of resources with strategies, and indicators for surveillance already in place.

Immunization rates provide information on the extent to which preventive measures are in place and being utilized to control life-threatening diseases. However, the percentage of the eligible population receiving immunization reflects more than access to, and availability of, appropriate health care. The decision on whether or not to receive an immunization can be influenced by socio-cultural conditions, educational attainment, and the economic environment. As such, increasing immunization rates are likely to require more than enhanced availability / accessibility of health services. Data quantity and quality may affect how accurately the immunization rate reflects true immunization coverage (see "Limitations" under "Technical Specification").

Performance Management Accountability Indicators

Immunization for influenza was included in the “Saskatchewan Comparable Health Indicators Report 2004” (Saskatchewan Health, 2004). Please see pages 61 to 65 of the report and section 69-HLT of the report’s technical specifications appendix for more information. Technical specifications can also be found in “Considerations for data production for reporting comparable health indicators in November 2004” (Performance Reporting Technical Working Group (PRTWG), 2004).

Targets / Benchmarks

To be determined.

Contributing Factors

- **Refusals:** Adults may refuse immunization based on the amount and quality of information they receive on immunization or perceived myths about risks of immunization. Family members may also refuse immunization for those older adults for whom they are making care decisions.
- **Operational conditions:** Staff-to-client ratios, drop-in clinics, waiting times, access issues via public health, physicians, residents of licensed special care homes. Flu shots are also available from private agencies such as private nursing companies, businesses such as pharmacies, and some employers. These numbers are not included in the coverage rate, but their numbers are rising.
- **Access to care:** Immunization disparities can exist for individuals from lower income backgrounds, with English as a second language and in communities where resident public health nursing services are not available.

Impact on Other Indicators

Increases in immunization rates can lead to the potential reduction of the complications of flu such as pneumonia. Enhanced immunization results in reduced prevalence of these diseases, and can decrease morbidity and mortality in high-risk population groups, such as the very old.

Potential for Action and Influence

To be determined.

Data Tables

Please see the corresponding section in the document “Performance Management Accountability Indicators: Data Tables”.

Technical Specification

Method of Calculation

Calculation

The number of adults age 65 years and older who received a flu shot divided by the total number of adults age 65 years and older, expressed as a percentage.

Numerator

The number of adults age 65 years and older receiving the recommended flu immunization during the flu season (September to March).

Denominator

The total number of adults age 65 years and older.

Performance Management Accountability Indicators

Inclusions / Exclusions

Exclusions:

- People who receive services from health care providers who do not report to Regional Health Authorities (RHAs), such as physicians, occupational health, out-of-province providers, private care homes, correctional facilities, private nursing agencies, private businesses (such as pharmacies, grocery stores), etc.

Data Source

Source

Source for the numerator is a manual count of immunizations given by public health nurses, physicians, and licensed special care home personnel in RHAs and First Nations agencies. Source for the denominator is Saskatchewan Health's Covered Population. The frequency of reporting is likely to be continual.

Flow

Immunization information is documented by public health nurses and submitted in aggregate numbers to Saskatchewan Health. Services provided by other health care providers such as physicians are submitted to the RHA and entered into the aggregate numbers. Aggregate information is available on a regional and provincial basis to generate coverage rate reports.

Availability

Annually. Data is available three to six months after the end of the fiscal year.

The Covered Population is based on a June 30th snapshot from Saskatchewan Health's Person Registry System (PRS), and is usually available in the fall of that same year.

Limitations

Data does not include flu shots provided by private agencies to individuals age 65 years and over, as well as immunizations provided by health care providers such as physicians, licensed special care homes, some First Nations jurisdictions, etc., who did not submit reports to public health.

References

National Advisory Committee on Immunization (NACI). 2002. Canadian Immunization Guide (6th Edition). Ottawa, Ontario: Health Canada.

Performance Reporting Technical Working Group (PRTWG). 2004. "Considerations for data production for reporting comparable health indicators in November 2004". (secure.cihi.ca/cihiweb/en/downloads/Considerations_for_Data_Production_November_15_ENG_FINAL.pdf)

Saskatchewan Health. 2004. "Saskatchewan Comparable Health Indicators Report 2004". (www.health.gov.sk.ca/mc_comparable_hlth_indicators_04.html)

Indicator Name Reference List

- **Influenza immunization rates for older adults**
 - Core Indicators for Progress & Results (2003/2004)
- **Influenza immunization rates (age 65 years and over)**
 - Performance Management Accountability Indicators (February 16 and 18, 2005 versions)
- **Influenza immunization rate per 100 population (age 65 years and over)**
 - Accountability Document (2005/2006 onwards)
 - Performance Management Accountability Indicators (March 16, 2005 version onwards)

COMMUNITY CARE SERVICES

Community Care Services includes outpatient mental health services, alcohol, drug and problem gambling services, and outpatient rehabilitation services.

Alcohol and drug outpatient treatment completion rate per 100 admissions

Section:	Program-Specific Indicators
Sub-Section:	Community Care Services
Category:	Health System Performance
Type of Measure:	Output
Status:	Active (since 2003/2004)
Definition:	Number of admissions who complete alcohol and drug outpatient treatment expressed as a percentage of the total number of alcohol and drug outpatient admissions for a specified time period (e.g. fiscal year).

Template Content Last Changed: May 26, 2006

Interpretation

Rationale and Notes for Interpretation

For clients, a successful treatment experience is contingent on the completion of an appropriate substance abuse program. Lack of successful completion may be indicative of an inability to meet the service needs of the clients. This does not necessarily denote system ineffectiveness – clients must be ready for treatment and be properly directed to a service that most completely addresses the holistic needs of the client.

It should also be noted that for many substance abusers who are in remission, success has come after several failed attempts at alcohol and drug treatment.

Targets / Benchmarks

To be determined.

Contributing Factors

- Greater self-awareness of severity of substance abuse.
- Social stability and support.
- Spousal and/or family support.
- Length of time between initial contact with client and first treatment.
- Cognitive impairment.
- Clients who self refer are more likely to complete treatment.

Impact on Other Indicators

To be determined.

Potential for Action and Influence

To be determined.

Data Tables

Please see the corresponding section in the document “Performance Management Accountability Indicators: Data Tables”.

Technical Specification

Method of Calculation

Calculation

Number of admissions that complete outpatient alcohol and drug treatment divided by the total number of alcohol and drug outpatient admissions for a specified time period (e.g. fiscal year).

Numerator

The total number of admissions who complete outpatient alcohol and drug treatment as determined by a case disposition of “completed treatment”, “completed and transferred” or “screening/referral”.

Denominator

The total number of admissions to an outpatient alcohol and drug program.

Inclusions / Exclusions

Inclusions:

- For the numerator, admissions with a case disposition of “completed treatment”, “completed and transferred” or “screening/referral”.

Exclusions:

- For the denominator, admissions with a case disposition of “transferred”, “deceased”, “other”, or “not recorded”.
- It is possible for clients to enter treatment in a given fiscal year and complete in a subsequent fiscal year. These are accounted for in the subsequent fiscal year.
- Outpatient services offered through third party funding, such as the Métis Addictions Council of Saskatchewan Incorporated (MACSI).

Data Source

Source

Alcohol and Drug Client Information System (ADCIS), Health Information Solutions Centre (HISC), Saskatchewan Health.

Flow

Alcohol and Drug Services staff completes admission and discharge forms for clients providing they have been deemed to have had a contact with a “significant” treatment component. The forms are collated and forwarded to HISC, Saskatchewan Health at the end of the intake month. Information is entered into the ADCIS and error sheets, for missing or incorrect information, are forwarded to the reporting agency quarterly. Service providers are expected to return corrections within two weeks.

Availability

Program statistics are reported in a preliminary format quarterly with an annual report issued after April 1st. Data is available six months after the end of the fiscal year.

Limitations

Concerns include reporting inconsistencies, regional acceptable standards of practice, database inconsistency and frequency of self-report to treatment.

References

- Epstein, E.E., B.S. McCrady, K.J. Miller and M. Steinberg. 1994. "Attrition from conjoint alcoholism treatment: do dropouts differ from completers?" *Journal of Substance Abuse* 6(3): 249-265.
- Godley, M.D., S.H. Godley, R.R. Funk, M.L. Dennis and D. Loveland. 2001. "Discharge status as a performance indicator: can it predict adolescent substance abuse treatment outcome?". *Journal of Child and Adolescent Substance Abuse* 11(1): 91-109.
- Noel, N.E., B.S. McCrady, R.L. Stout and H. Fisher-Nelson. 1987. "Predictors of attrition from an outpatient alcoholism treatment program for couples". *Journal of Studies on Alcohol* 48(3): 229-235.

Indicator Name Reference List

- **Provision of quality OP alcohol and drug services, measured by (1) percentage of clients who complete treatment**
 - Accountability Document (2003/2004)
- **Alcohol and drug outpatient treatment completion rates**
 - Core Indicators for Progress & Results (2003/2004)
 - Performance Management Accountability Indicators (February 16 and 18, 2005 versions)
- **Provision of appropriate and effective outpatient alcohol and drug services, measured by the percentage of clients who complete treatment**
 - Accountability Document (2004/2005)
- **Alcohol and drug outpatient treatment completion rate per 100 clients**
 - Accountability Document (2005/2006)
 - Performance Management Accountability Indicators (March 16, 2005 version)
- **Alcohol and drug outpatient treatment completion rate per 100 admissions**
 - Accountability Document (2006/2007 onwards)
 - Performance Management Accountability Indicators (March 31, 2005 version onwards)

HOME-BASED ACUTE AND PALLIATIVE CARE

No active indicators.

PRIMARY HEALTH SERVICES

Primary Health Services includes primary health care teams, and health centres.

Percentage of RHA population with geographic proximity to primary health care teams

Section:	Program-Specific Indicators
Sub-Section:	Primary Health Services
Category:	Health System Performance
Type of Measure:	Quality
Status:	Active (since 2004/2005) Quarterly Performance Management Report (“Dashboard”) measure (since 2004/2005)
Definition:	Covered population of the catchment area for each primary health care team, expressed as a percentage of the total covered population for the specified region.

Template Content Last Changed: April 21, 2006

Interpretation

Rationale and Notes for Interpretation

The 2003 First Ministers’ Accord on Health Care Renewal maintains that the ultimate goal of primary health care reform in Canada is to provide all Canadians, wherever they live, with access to an appropriate health care provider, 24 hours a day, 7 days a week. Towards this goal, First Ministers emphasized accelerating primary health care initiatives and making significant annual progress so that citizens routinely receive needed care from interdisciplinary primary health care teams. The Accord committed to the goal of ensuring that at least 50% of residents have 24/7 access to a primary health care team as soon as possible and that this target be fully met within 8 years.

Within this context, the percentage of population with geographic proximity to primary health care teams is a significant dimension of primary health care capacity building in the area of accessibility building upon the “closer to home” concept. This percentage denotes Saskatchewan’s covered population with proximity to each team calculated on the basis of catchment areas. By March 2006, 38 interdisciplinary primary health care teams have been established to provide access to the residents of the 13 Regional Health Authorities (RHAs). More than 15 new teams are planned for 2006/2007.

There might be some confusion that the catchment population is the number of people actually receiving the service.

Targets / Benchmarks

“The Action Plan for Saskatchewan Health Care” (December 2001) targets access for 25% of Saskatchewan residents by 2006 and 100% within 10 years (2011).

Contributing Factors

The concept of primary health care access as “ability to obtain appropriate entry-level health services at the right time in the right place” is a major determinant for this indicator. Demographics in rural and urban Saskatchewan and the organization of the RHAs are the chief contributing factors in determining the covered population for each of the primary health care teams. The specific RHAs define the catchment area (urban and rural communities and neighbourhoods) for each of the teams that are established within

Performance Management Accountability Indicators

their jurisdiction on the basis of a needs assessment of geographic distribution and demography, as well as Regional Health Authority plans for the number of teams required for the region. RHAs will need to refine how this measure is calculated over time.

Impact on Other Indicators

This indicator will be directly associated with other primary health care accessibility goals, such as:

- percentage of primary health care (PHC) teams providing 24/7 access (mandated goal of 2003 Health Accord);
- geographic distribution of PHC personnel compared to distribution of population;
- number of discrete clients accessing services;
- number of contacts with a primary health care provider; and,
- Healthline as a measure of access.

Together, they will be able to paint a comprehensive picture of the various dimensions of primary health care access in the province.

Potential for Action and Influence

The mechanisms for affecting the indicator will be dependant upon freeing up required Health Accord dollars at the provincial level to establish primary health care teams across the province according to needs assessments done by the RHAs.

Data Tables

Please see the corresponding section in the document "Performance Management Accountability Indicators: Data Tables".

Technical Specification

Method of Calculation

Calculation

Sum of the covered population with access to primary health care teams in the rural and urban communities for a specified time period divided by the total covered population of an RHA for that time period, expressed as a percentage.

Numerator

The sum of the covered population in the rural and urban communities (Rural Municipalities (RMs) and associated rural communities for the rural sectors, and urban neighbourhoods for the urban sectors) having access to PHC teams for a specified time period.

Example: The catchment population of Arborfield Carrot River includes the RMs of Moose Range and Arborfield, and the rural communities of Carrot River, Arborfield and Zenon Park. Similarly, the catchment population of the Saskatoon primary health care Southeast site includes urban neighbourhoods and communities of Eastview and Nutana Suburban Centre.

Denominator

The total covered population of an RHA for a specified time period.

Performance Management Accountability Indicators

Inclusions / Exclusions

Inclusions:

- 100% of the population of northern Saskatchewan (north of Prince Albert) is served either by provincially funded PHC teams and/or federal First Nations funded teams. So, the percentage of population served by the PHC teams in these RHAs is 100%.

Exclusions:

- None.

Data Source

Source

Saskatchewan Health covered population data.

Flow

RHA defines catchment while setting up PHC teams and forwards information to Primary Health Services Branch (PHSB), Saskatchewan Health. Health Information Solutions Centre (HISC) calculates the catchment population on the basis of this information and PHSB reports this calculation.

Availability

The catchment population information for primary health care teams is available from the RHAs when they set up teams in their jurisdictions. Changes are updated regularly in a database maintained by HISC along with input from PHSB for federal and provincial reporting and accountability purposes.

The Covered Population is based on a June 30th snapshot from Saskatchewan Health's Person Registry System (PRS), and is usually available in the fall of that same year.

March 2006 is the most complete data available.

Limitations

Primary health care teams serving specific populations (for example, University of Saskatchewan Student Health Centre).

Overlap in urban postal codes for specialized projects (e.g. White Buffalo Youth Lodge serving youth (ages 5 to 22) while another primary health care team serving all ages in the communities).

References

Goddard, M. and P. Smith. 1998. "Equity of access to health care". York: University of York.

Health Canada. September 2003. "The 2003 First Ministers' Accord on Health Care Renewal".

Primary Health Services Branch (PHSB), Saskatchewan Health. June 2004. "Evaluating Primary Health Care in Saskatchewan: A Proposed Rationale and Indicator Framework".

Saskatchewan Health. December 2001. "The Action Plan for Saskatchewan Health Care".

Wilson, K. and M.W. Rosenberg. 2002. "The geographies of crisis: exploring accessibility to health care in Canada". *The Canadian Geographer* 46(3): 223(12).

Indicator Name Reference List

- **Percentage of the population served by primary health care teams**
 - Accountability Document (2003/2004, 2004/2005 and 2005/2006)
 - Performance Management Accountability Indicators (May 21, 2005 version and earlier)

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- **Percentage of RHA population within defined area served by existing primary health care sites**
 - Performance Management Dashboard (2004/2005)
- **Percentage of RHA population with geographic proximity to a primary health care team**
 - Performance Management Dashboard (2005/2006)
- **Percentage of RHA population with geographic proximity to primary health care teams**
 - Accountability Document (2006/2007 onwards)
 - Performance Management Accountability Indicators (April 21, 2006 version onwards)

Total number of new primary health care teams developed in the current year

Section: Program-Specific Indicators

Sub-Section: Primary Health Services

Category: Health System Performance

Type of Measure: Structure / Process

Status: Active (since 2004/2005)

Definition: This measure indicates the total number of new primary health care teams set up in each Regional Health Authority (RHA) during the current fiscal year.

Template Content Last Changed: April 21, 2006

Interpretation

Rationale and Notes for Interpretation

Team development is key in promoting primary health care in Saskatchewan. The 2003 First Ministers' Accord on Health Care Renewal maintains that the ultimate goal of primary health care reform in Canada is to provide all Canadians, wherever they live, with access to an appropriate health care provider, 24 hours a day, 7 days a week. Towards this goal, First Ministers emphasized accelerating primary health care initiatives and making significant annual progress so that citizens routinely receive needed care from interdisciplinary primary health care teams. By March 2006, 38 interdisciplinary primary health care teams have been established to provide access to the residents of the 13 RHAs. More than 15 new teams are planned for 2006/2007, based on the location identification and needs assessment done by the RHAs.

Data Tables

Please see the corresponding section in the document "Performance Management Accountability Indicators: Data Tables".

References

Health Canada. September 2003. "The 2003 First Ministers' Accord on Health Care Renewal".

Indicator Name Reference List

- **Development of two (2) new primary health care central teams in 2004-05. (Increase the percentage of population served by primary health care teams in region.)**
 - Accountability Document (2004/2005)
- **Total number of new primary health care central teams developed in 2004/2005**
 - Performance Management Accountability Indicators (February 16 and 18, 2005 versions)
- **Total number of new primary health care teams developed in the current fiscal year**
 - Accountability Document (2005/2006)
 - Performance Management Accountability Indicators (March 16, 2005 version)
- **Total number of new primary health care teams in the current fiscal year**
 - Performance Management Accountability Indicators (March 31 and May 21, 2005 versions)
- **Total number of new primary health care teams developed in the current year**
 - Accountability Document (2006/2007 onwards)
 - Performance Management Accountability Indicators (April 21, 2006 version onwards)

Regional Operational / Budget Plan includes an updated Primary Health Care Plan that identifies the location of primary health care teams

Section:	Program-Specific Indicators
Sub-Section:	Primary Health Services
Category:	Health System Performance
Type of Measure:	Structure / Process
Status:	Active (since 2004/2005)
Definition:	A yes/no measure assessing whether the operational / budget plan for each Regional Health Authority (RHA) includes an updated primary health care plan that identifies the locations of potential primary health care teams.

Template Content Last Changed: April 21, 2006

Interpretation

Rationale and Notes for Interpretation

Team development is key in promoting primary health care in Saskatchewan. The 2003 First Ministers' Accord on Health Care Renewal maintains that the ultimate goal of primary health care reform in Canada is to provide all Canadians, wherever they live, with access to an appropriate health care provider, 24 hours a day, 7 days a week. Towards this goal, First Ministers emphasized accelerating primary health care initiatives and making significant annual progress so that citizens routinely receive needed care from interdisciplinary primary health care teams. By March 2006, 38 interdisciplinary primary health care teams have been established to provide access to the residents of the 13 RHAs. More than 15 new teams are planned for 2006/2007, based on the location identification and needs assessment undertaken by the 13 RHAs. The RHA Operational Planning Guideline Document set up by Saskatchewan Health asks the RHAs to include proposed locations of central, satellite and visiting primary health care teams

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and indicate how the teams would link with each other and existing or proposed program teams in the region.

Data Tables

Please see the corresponding section in the document "Performance Management Accountability Indicators: Data Tables".

References

Health Canada. September 2003. "The 2003 First Ministers' Accord on Health Care Renewal".

Indicator Name Reference List

- **The Regional Operational/Budget Plan will include an updated Primary Health Care and Diabetes Plan; implementation progress; report on health centres; and changes with community clinics. Consideration will be given to access to primary health care services if other health system changes are planned.**
 - Accountability Document (2004/2005)
- **The Regional Operational / Budget Plan includes an updated Primary Health Care and Diabetes Plan that identifies location of primary health care teams and outlines budget expectations**
 - Performance Management Accountability Indicators (February 16 and 18, 2005 versions)
- **Regional Operational / Budget Plan includes an updated Primary Health Care Plan that identifies the locations of primary health care teams**
 - Performance Management Accountability Indicators (March 16, March 31 and May 21, 2005 versions)
- **Regional Operational / Budget Plan includes an updated Primary Health Care Plan that identifies the location of primary health care teams**
 - Accountability Document (2005/2006 onwards)
 - Performance Management Accountability Indicators (April 21, 2006 version onwards)

Regional Operational / Budget Plan includes an updated Primary Health Care Plan that includes an updated Diabetes Plan

Section: Program-Specific Indicators

Sub-Section: Primary Health Services

Category: Health System Performance

Type of Measure: Structure / Process

Status: Active (since 2004/2005)

Definition: A yes/no measure assessing whether the operational / budget plan for each Regional Health Authority (RHA) includes an updated diabetes management plan.

Template Content Last Changed: March 31, 2005

Interpretation

Rationale and Notes for Interpretation

Improved screening and associated reduction in complication rates for chronic diseases like diabetes are the key expected primary health care outcomes. With an anticipated increase in Saskatchewan's diabetic population from 47,000 in 2003 to 71,150 in 2016, future diabetes-related complications could be avoided through better management and coordination through primary health care. This is the fundamental reason for making sure that Regional Health Authorities undertake initiatives to effectively prevent and manage chronic conditions like diabetes. Within this context, this yes/no measure will address the major primary health care objective of improvement of prevention and better coordination of care.

Data Tables

Please see the corresponding section in the document "Performance Management Accountability Indicators: Data Tables".

Indicator Name Reference List

- **The Regional Operational/Budget Plan will include an updated Primary Health Care and Diabetes Plan; implementation progress; report on health centres; and changes with community clinics. Consideration will be given to access to primary health care services if other health system changes are planned.**
 - Accountability Document (2004/2005)
- **Regional Operational / Budget Plan includes an updated Diabetes Management Plan**
 - Accountability Document (2005/2006)
 - Performance Management Accountability Indicators (May 21, 2005 version and earlier)
- **Regional Operational / Budget Plan includes an updated Primary Health Care Plan that includes an updated Diabetes Plan**
 - Accountability Document (2006/2007 onwards)
 - Performance Management Accountability Indicators (April 21, 2006 version onwards)

Regional Operational / Budget Plan includes an updated Primary Health Care Plan that outlines potential primary health care financial requirements

Section: Program-Specific Indicators

Sub-Section: Primary Health Services

Category: Health System Performance

Type of Measure: Structure / Process

Status: Active (since 2004/2005)

Definition: A yes/no measure assessing whether the operational / budget plan for each Regional Health Authority (RHA) includes the potential primary health care financial requirements.

Template Content Last Changed: April 21, 2006

Interpretation

Rationale and Notes for Interpretation

Team development is key in promoting primary health care in Saskatchewan. The 2003 First Ministers' Accord on Health Care Renewal maintains that the ultimate goal of primary health care reform in Canada is to provide all Canadians, wherever they live, with access to an appropriate health care provider, 24 hours a day, 7 days a week. Towards this goal, First Ministers emphasized accelerating primary health care initiatives and making significant annual progress so that citizens routinely receive needed care from interdisciplinary primary health care teams. By March 2006, 38 interdisciplinary primary health care teams have been established to provide access to the residents of the 13 RHAs. More than 15 new teams are planned for 2006/2007, based on the location identification, needs assessment and financial requirements undertaken by the RHAs. According to the Regional Health Authority Operational Planning Guidelines set up by Saskatchewan Health, the Regional Operational / Budget Plan for each RHA is required to outline potential financial requirements and budget plans for the primary health care teams and their different operational components along with other program financial expectations. Saskatchewan Health Action Plan and Performance Plan serve to provide an overarching framework for the development of the RHA Operational / Budget Plans.

Data Tables

Please see the corresponding section in the document "Performance Management Accountability Indicators: Data Tables".

References

Health Canada. September 2003. "The 2003 First Ministers' Accord on Health Care Renewal".
Saskatchewan Health. December 2001. "The Action Plan for Saskatchewan Health Care".

Indicator Name Reference List

- **The Regional Operational/Budget Plan will include an updated Primary Health Care and Diabetes Plan; implementation progress; report on health centres; and changes with community clinics. Consideration will be given to access to primary health care services if other health system changes are planned.**
 - Accountability Document (2004/2005)
- **Regional Operational / Budget Plan outlines potential financial requirements**
 - Accountability Document (2005/2006)
 - Performance Management Accountability Indicators (May 21, 2005 version and earlier)
- **Regional Operational / Budget Plan includes an updated Primary Health Care Plan that outlines potential primary health care financial requirements**
 - Accountability Document (2006/2007 onwards)
 - Performance Management Accountability Indicators (April 21, 2006 version onwards)

RHA participated in 5-year evaluations of demonstration sites, as required

Section:	Program-Specific Indicators
Sub-Section:	Primary Health Services
Category:	Health System Performance
Type of Measure:	Structure / Process
Status:	Active (since 2004/2005)
Definition:	A measure assessing whether the original primary health care demonstration sites have participated in 5-year evaluations as specified in their contracts.

Template Content Last Changed: April 21, 2006

Interpretation

Rationale and Notes for Interpretation

Saskatchewan primary health care (PHC) services function on the understanding that evaluation is central to the progress and development of PHC services and it is important to evaluate the success and challenges of the PHC services in the province to:

- help PHC providers and organizations meet the needs of the population;
- help Regional Health Authorities (RHAs) provide equitable care;
- improve the impact of PHC services on health status;
- help managers allocate resources wisely;
- ensure that relevant information and data are gathered from the sites for meaningful future comparisons and predictions based on sound methodologies; and,
- report PHC performance.

In this context, two levels of primary health care evaluation initiatives are simultaneously going on in Saskatchewan:

- site-specific interim and 5-year evaluations (of the PHC demonstration sites); and,
- development and implementation of an overarching Provincial PHC Evaluation Framework.

The interim evaluations of the PHC demonstration sites have been carried on at 10 sites and have largely relied upon narratives and demographics from the sites, site status reports, program description forms, quantitative and qualitative analysis of survey tools (like client satisfaction surveys and provider surveys), team effectiveness tools to assess team functioning, and administrative data on client care seeking patterns and services provided by the primary care nurses. Specific areas in these interim evaluations relate to assessing the expanded role of the nurse practitioners, impact of newly introduced PHC programs on changing the style of practice, evidence of team development at the sites, patterns of care seeking by catchment populations, and satisfaction of clients / patients with the PHC services provided at the sites.

For the 5-year evaluation of the demonstration sites, a more detailed evaluation framework has been set up. In 1997/1998, an expert technical committee, comprised of representatives from the Health Services Utilization and Research Commission (HSURC), several medical, epidemiological and behavioural units from the University of Regina and University of Saskatchewan, Community Health Co-operative

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Federation, Northern Intertribal Health Authority and District Health Boards, was set up to advise Saskatchewan Health about evaluation questions, indicators, data sources, and the best tool or measure to answer specific evaluation questions based on the objectives for primary health service demonstration sites. This draft document was then shared with the districts, demonstration sites, health provider forums, etc. for input and feedback. The evaluation framework was reviewed and modified by the Primary Health Services Branch (PHSB) in 2003. Special tools associated with the framework (client satisfaction surveys, focus groups, etc.) have sought ethics approval from the University of Saskatchewan's Behavioural Ethics Board. With various kinds of measurement tools like program description forms, site narratives, client satisfaction surveys, focus groups, team effectiveness tools and administrative data, the Saskatchewan 5-year evaluation framework addresses the following questions:

- Have the sites established an interdisciplinary team that functions effectively?
- What strategies were put in place to build the team?
- How are the sites involving the communities in planning and delivering services?
- Is service delivery client centred?
- What kinds of proactive approaches and strategies of early intervention and health maintenance have been adopted to address community health issues?
- How have these strategies been put into place and what are their individual and collective impacts?
- What are the cost impacts of the PHC model?

PHSB is currently engaged in gathering and analyzing data in accordance with the needs and directions of this 5-Year Evaluation Framework.

This structure / process measure tracks the participation of primary health care demonstration sites in the interim and 5-year evaluations. It needs to be noted that because of extensions requested by RHAs and granted by Saskatchewan Health, the interim and 5-year evaluations have been delayed for many of these sites.

Data Tables

Please see the corresponding section in the document "Performance Management Accountability Indicators: Data Tables".

References

Health Canada. September 2003. "The 2003 First Ministers' Accord on Health Care Renewal".

Primary Health Services Branch (PHSB), Saskatchewan Health. June 2004. "Evaluating Primary Health Care in Saskatchewan: A Proposed Rationale and Indicator Framework".

Indicator Name Reference List

- **Regional health authorities will participate in demonstrations site evaluations for 2004-05 (RHA specific)**
 - Accountability Document (2004/2005)
- **Regional Health Authorities participated in 3-year and 5-year evaluations of demonstration sites, as required**
 - Accountability Document (2005/2006)
 - Performance Management Accountability Indicators (May 21, 2005 version and earlier)
- **RHA participated in 5-year evaluations of demonstration sites, as required**
 - Accountability Document (2006/2007 onwards)
 - Performance Management Accountability Indicators (April 21, 2006 version onwards)

EMERGENCY RESPONSE SERVICES

Emergency Response Services includes road ambulance, and emergency services enhancement.

No active indicators.

MENTAL HEALTH AND ADDICTION SERVICES

Mental Health and Addiction Services includes short-term inpatient mental health services in select hospitals, and residential care for mental health, alcohol and drug treatment.

Average length of stay of mental health inpatients compared to expected length of stay

Section:	Program-Specific Indicators
Sub-Section:	Mental Health and Addiction Services
Category:	Health System Performance
Type of Measure:	Efficiency
Status:	Active (since 2005/2006) <i>[This indicator was Active in 2003/2004, and included in 2003/2004 RHA Annual Reports.]</i>
Definition:	Average actual length of stay in days for separations from a mental health inpatient unit compared to average expected length of stay (based on Canadian Institute for Health Information (CIHI) expected length of stay information).

Template Content Last Changed: May 26, 2006

Interpretation

Rationale and Notes for Interpretation

Expected length of stay (ELOS) is derived by the Canadian Institute for Health Information (CIHI) using its Case Mix Group (CMG) methodology and national data, and varies by CMG, complexity level (Plx) and age category. Calculations take into account the reason for hospitalization, age, comorbidity, and complications. Please refer to "DAD Resource Intensity Weights and Expected Length of Stay 2005" (CIHI, 2005) for further details on the ELOS calculation methodology.

This indicator could be calculated with and without outliers (an outlier, as determined by CIHI, is any case where the length of stay is longer than the statistically-derived length of stay associated with that type of case). If, for example, the average actual length of stay is considerably longer than the average ELOS, it would be helpful to know whether this is due to a small number of outliers or a more general trend.

Higher than average lengths of hospital stay for persons with serious mental illness may reflect inadequate community service supports.

Targets / Benchmarks

To be determined.

Contributing Factors

- Severity of mental disorder.
- Substance abuse or dependence.
- Spousal and/or family support.
- Cognitive impairment.
- Regional treatment standard.

Impact on Other Indicators

To be determined.

Potential for Action and Influence

To be determined.

Data Tables

Please see the corresponding section in the document “Performance Management Accountability Indicators: Data Tables”.

Technical Specification

Method of Calculation – Average actual length of stay of mental health inpatients

Calculation

Total actual number of days associated with separations from a mental health inpatient unit divided by total number of separations from a mental health inpatient unit.

Numerator

Total actual number of days associated with separations from a mental health inpatient unit.

Denominator

Total number of separations from a mental health inpatient unit.

Inclusions / Exclusions

Inclusions:

- Separations from mental health inpatient units of the following Saskatchewan facilities:
 - Moose Jaw Union Hospital, Regina General Hospital, Royal University Hospital (Saskatoon), Saskatoon City Hospital, and Cypress Regional Hospital (Swift Current)
– all records with a prefix of 0 (acute), a main patient service of 64 (psychiatric) or 65 (paediatric psychiatric), and (effective 2004/2005) a provincial ancillary code of 1 (designated psychiatric bed).
 - Battlefords Union Hospital, Victoria Hospital (Prince Albert), Weyburn Mental Health Centre, and Yorkton Regional Health Centre
– all records with a prefix 7 (psychiatric).

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Exclusions:

- Individuals who are admitted in a given fiscal year and not discharged in that fiscal year are accounted for in the subsequent fiscal year.
- Individuals admitted to non-psychiatric wards.
- Patients at Saskatchewan Hospital North Battleford (SHNB).

Method of Calculation – Average expected length of stay of mental health inpatients

Calculation

Total expected number of days associated with separations from a mental health inpatient unit divided by total number of separations from a mental health inpatient unit.

Numerator

Total expected number of days associated with separations from a mental health inpatient unit.

For each separation, the expected number of days is the ELOS value assigned by CIHI.

Denominator

Total number of separations from a mental health inpatient unit.

Inclusions / Exclusions

Same as those in “Method of Calculation – Average actual length of stay of mental health inpatients” above.

Data Source

Source

The source is Saskatchewan Health’s year-end hospital file. This file is mainly data submitted to the Canadian Institute for Health Information’s (CIHI’s) Discharge Abstract Database (including about 67% of the records for Saskatchewan residents hospitalized in out of province facilities), but also includes merged information from Saskatchewan Health’s reciprocal billing system to fill in the rest of the out of province hospitalizations.

Flow

Please see “Appendix E – Detailed Data Flow: Acute Care Hospital Data” for details on the data flow for CIHI’s DAD and Saskatchewan Health’s year-end hospital file.

Availability

Annually. CIHI’s final version of the data is available 5 to 6 months after the end of the fiscal year. Saskatchewan Health’s final version of this data is available 11 to 12 months after the end of the fiscal year.

Limitations

While many mental health episodes requiring acute care admission are appropriately diagnosed, some are not. If an individual is admitted with an incorrect diagnosis and the client is not re-diagnosed during the acute care stay, mistakes may occur.

CIHI has advised that ELOS, CMGs and resource intensity weights (RIWs) should be interpreted with caution. Two main factors have affected these measures:

- In 2001, the diagnostic and procedure coding systems were changed from the International Statistical Classification of Diseases, Injuries, and Causes of Death, Ninth Revision (ICD-9) and the Canadian Classification of Procedures (CCP) to the International Statistical Classification of Diseases and Related Health Problems – Tenth Revision, Canada (ICD-10-CA) and the Canadian Classification of Health Interventions (CCI) in most of Saskatchewan (and several

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other, but not all, provinces), which resulted in significant shifts in the number of cases assigned to many of the existing CMGs. Despite some measures that CIHI has taken to improve comparability of data from year to year and across jurisdictions, comparability issues remain.

- The results of CIHI's DAD reabstraction study, which found variations in coding practices that compromised comparability and accuracy of diagnostic data. For example, they found evidence that some provinces were "upcoding", thereby inflating what the ELOS should have been in many cases.

It appears that CIHI has made adjustments for 2002/2003 data onwards to address problems with ELOS, but the validity of ELOS is still uncertain.

References

Canadian Institute for Health Information (CIHI). 2005. "DAD Resource Intensity Weights and Expected Length of Stay 2005". Ottawa, Ontario: CIHI.

Indicator Name Reference List

- **Provision of appropriate and quality care to mental health inpatients, measured by (1) average length of stay of inpatients compared to expected LOS**
 - Accountability Document (2003/2004)
- **Average length of stay of mental health inpatient clients compared to expected length of stay**
 - Core Indicators for Progress & Results (2003/2004)
- **Provision of appropriate and effective care to mental health inpatients, measured by (1) average length of stay of inpatients compared to expected LOS**
 - Accountability Document (2004/2005)
- **Average length of stay of mental health inpatients compared to expected length of stay**
 - Accountability Document (2005/2006 onwards)
 - Performance Management Accountability Indicators (all versions to date)

Mental health inpatient readmission rate per 100 mental health inpatients

Section: Program-Specific Indicators

Sub-Section: Mental Health and Addiction Services

Category: Health System Performance

Type of Measure: Quality

Status: Active (since 2004/2005)

Definition: The number of clients with two or more separations from a region's mental health inpatient setting for an identifiable mental health concern within the fiscal year divided by the total number of clients with separations from that region's mental health inpatient setting for an identifiable mental health concern within that fiscal year, expressed as a percentage.

Template Content Last Changed: May 26, 2006

Interpretation

Rationale and Notes for Interpretation

Although partly due to the refractory nature of serious mental illness, a high rate of hospital readmission within a relatively short period may be indicative of poor quality care, premature discharge or an inadequate level of community supports.

It is important to recognize that certain mental illnesses may necessitate several short-term admissions on a yearly basis and this may be a perfectly acceptable practice. Psychiatrist practice, acceptable treatment standards and the mix of inpatient client diagnoses all contribute to readmission rates and lengths of stay. It may be possible to report readmission rates by shorter time periods (e.g. under 7 days, under 28 days) as well.

Additional information on mental health readmissions can be found in the “Mental Health, Alcohol and Drug Services, Problem Gambling, and Acquired Brain Injury Program Review” (Saskatchewan Health).

Targets / Benchmarks

To be determined.

Contributing Factors

- Psychotic diagnosis is the most influential predictor of readmission.
- **Dual Diagnosis:** Individuals presenting concurrently with a serious mental illness and a substance abuse issue are more likely to experience second and subsequent admissions to mental health inpatient facilities.
- Lack of stable housing.
- Inadequate social supports.
- Access of services from multiple providers – cyclical pattern.
- Socio-economic status.
- Personal health practices.
- Individual coping responses.
- Medication adherence.
- Access to community based programs.
- Access to post acute mental health home care.

Impact on Other Indicators

To be determined.

Potential for Action and Influence

To be determined.

Data Tables

Please see the corresponding section in the document “Performance Management Accountability Indicators: Data Tables”.

Technical Specification

Method of Calculation

Calculation

The number of discrete clients with two or more separations from a region's mental health inpatient setting for an identifiable mental health concern within the fiscal year divided by the total number of discrete clients with separations from that region's mental health inpatient setting for an identifiable mental health concern within that fiscal year, expressed as a percentage.

NOTE: Saskatoon's mental health inpatient setting currently includes two facilities: Royal University Hospital and Saskatoon City Hospital. The number of discrete clients is based on the region as a whole, and is not the sum of the number of discrete clients for each facility separately.

Numerator

Number of discrete clients with two or more separations from a region's mental health inpatient setting for an identifiable mental health concern (see Inclusions below) within a fiscal year.

Denominator

Total number of discrete clients with separations from a region's mental health inpatient setting for an identifiable mental health concern (see Inclusions below) within that fiscal year.

Inclusions / Exclusions

Inclusions:

- Separations from mental health inpatient units of the following Saskatchewan facilities:
 - Moose Jaw Union Hospital, Regina General Hospital, Royal University Hospital (Saskatoon), Saskatoon City Hospital and Cypress Regional Hospital (Swift Current)
– all records with a prefix of 0 (acute), a main patient service of 64 (psychiatric) or 65 (paediatric psychiatric), and (effective 2004/2005) a provincial ancillary code of 1 (designated psychiatric bed).
 - Battlefords Union Hospital, Victoria Hospital (Prince Albert), Weyburn Mental Health Centre, and Yorkton Regional Health Centre
– all records with a prefix 7 (psychiatric).

Exclusions:

- Individuals who are admitted in a given fiscal year and not discharged in that fiscal year are accounted for in the subsequent fiscal year.
- Individuals admitted to non-psychiatric wards.
- Patients at Saskatchewan Hospital North Battleford (SHNB).

Data Source

Source

The source is Saskatchewan Health's year-end hospital file. This file is mainly data submitted to the Canadian Institute for Health Information's (CIHI's) Discharge Abstract Database (including about 67% of the records for Saskatchewan residents hospitalized in out of province facilities), but also includes merged information from Saskatchewan Health's reciprocal billing system to fill in the rest of the out of province hospitalizations.

Flow

Please see "Appendix E – Detailed Data Flow: Acute Care Hospital Data" for details on the data flow for CIHI's DAD and Saskatchewan Health's year-end hospital file.

Availability

Annually. CIHI's final version of the data is available 5 to 6 months after the end of the fiscal year. Saskatchewan Health's final version of this data is available 11 to 12 months after the end of the fiscal year.

Limitations

While many mental health episodes requiring acute care admission are appropriately diagnosed some are not. If an individual is admitted with an incorrect diagnosis and is not re-diagnosed during the acute care stay, mistakes may occur.

For Saskatoon, some of the separations might be transfers from one facility to the other, and are not really "readmissions". Transfers are not accurately / consistently identified in the CIHI data, and the calculation methodology for this indicator does not currently take them into account. In order to address this issue, client counts have been manually adjusted based on information provided by Saskatoon. Further work, however, still needs to be done.

Client totals for Saskatchewan are the summation of region numbers, and may not represent discrete clients. For example, an individual admitted in two different regions during the fiscal year would be included in the discrete counts for both regions, and thus counted twice in the provincial total.

For 2003/2004 and earlier, patient services 64 and 65 do not distinguish between admissions that occurred on psychiatric wards and those that occurred on other wards in the same hospital, resulting in an over count of psychiatric ward admissions. Most affected for 2003/2004 is Regina General Hospital.

References

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- Segal, S.P., P.D. Akutsu and M.A. Watson. 2002. "Involuntary return to a psychiatric emergency service within twelve months". *Social Work in Health Care* 35(1-2): 591-603.
- Weiden, P.J. and M. Olfson. 1995. "Cost of relapse in schizophrenia". *Schizophrenia Bulletin* 21(3): 419-429.

Indicator Name Reference List

- **Acute care readmission rates for mental health patients within one year of discharge**
 - Accountability Document (2003/2004 [*Schedule 2: Health Status and Outcome Indicators*])
- **Provision of appropriate and quality care to mental health inpatients, measured by (2) percentage of admissions who are readmitted in a year**
 - Accountability Document (2003/2004 [*Schedule 4: Program Specific Expectations and Indicators – Inpatient/Residential Mental Health and Addiction Services section*])
- **Provision of appropriate and effective care to mental health inpatients, measured by (2) percentage of patients discharged from inpatient psychiatric care, who are readmitted to inpatient care for a psychiatric reason within one year of discharge, by diagnosis**
 - Accountability Document (2004/2005 [*Schedule 2 (II): Program-Specific Expectations – Mental Health and Addiction Services section*])
- **Percentage of patients, discharged from inpatient psychiatric care, who are readmitted to inpatient care for a psychiatric reason within one year of discharge, by diagnosis**
 - Accountability Document (2004/2005 [*Schedule 4: Health Status and Outcome Indicators section*])
 - Performance Management Accountability Indicators [section 2.2.11.2.] (February 16 and 18, 2005 versions)
- **Mental health inpatient readmission rate**
 - Performance Management Accountability Indicators [section 3.2.1.1.] (February 16 and 18, 2005 versions)
- **Mental health inpatient readmission rate per 100 mental health inpatient separations**
 - Accountability Document (2005/2006 and 2006/2007)
 - Performance Management Accountability Indicators (March 16 and 31, 2005 versions)
- **Mental health inpatient readmission rate per 100 mental health inpatients**
 - Performance Management Accountability Indicators (May 21, 2005 version onwards)

Alcohol and drug inpatient treatment completion rate per 100 admissions

Section: Program-Specific Indicators

Sub-Section: Mental Health and Addiction Services

Category: Health System Performance

Type of Measure: Output

Status: Active (since 2003/2004)

Definition: Number of admissions who complete alcohol and drug inpatient treatment expressed as a percentage of the total number of admissions for a specified time period (e.g. fiscal year).

Template Content Last Changed: May 26, 2006

Interpretation

Rationale and Notes for Interpretation

For clients, a successful treatment experience is contingent on the completion of an appropriate substance abuse program. Lack of successful completion may be indicative of an inability to meet the service needs of the clients. This does not necessarily denote system ineffectiveness – clients must be ready for treatment and be properly directed to a service that most completely addresses the holistic needs of the client.

It should also be noted that for many substance abusers in remission, success has come after several failed attempts at alcohol and drug treatment.

Individuals who are part of an inpatient / residential alcohol and drug treatment program are likely to become, or are already, outpatient alcohol and drug clients. This may create a picture of greater overall population utilization when in fact a smaller chronic group are being counted as clients in several programs instead of being identified as a singular discrete client receiving a number of services through the alcohol and drug treatment continuum.

Targets / Benchmarks

To be determined.

Contributing Factors

- Frequency and severity of substance use.
- Greater self-awareness of the severity of substance abuse.
- Social stability – spousal and/or family support.
- Length of time between initial contact with client and first treatment.
- Cognitive impairment.
- Self-referring clients are more likely to complete treatment.

Impact on Other Indicators

- Outpatient Alcohol and Drug Treatment Completion Rate: Individuals who are part of an inpatient or residential alcohol and drug treatment program are also likely outpatient clients. This may create a picture of greater overall population utilization when in fact a smaller chronic group is being counted throughout several programs.
- Problem Gambling Treatment Completion Rate: As above.
- Mental Health Inpatient Treatment Completion Rate / Timely Access to Outpatient Mental Health Services: As above.

Potential for Action and Influence

To be determined.

Data Tables

Please see the corresponding section in the document “Performance Management Accountability Indicators: Data Tables”.

Technical Specification

Method of Calculation

Calculation

Number of admissions who complete alcohol and drug inpatient treatment divided by the total number of admissions for a specified time period, expressed as a percentage.

Numerator

The total number of admissions who complete alcohol and drug inpatient treatment, as determined by a case disposition of either “completed treatment” or “completed and transferred”.

Denominator

The total number of alcohol and drug inpatient admissions.

Inclusions / Exclusions

Inclusions:

- For the numerator, admissions with a case disposition of “completed treatment” or “completed and transferred”.

Exclusions:

- It is possible for clients who enter treatment in a given fiscal year to be discharged in a subsequent fiscal year. These are accounted for in the subsequent fiscal year.
- Detox and Long-term Residential services.

Data Source

Source

Alcohol and Drug Client Information System (ADCIS), Health Information Solutions Centre (HISC), Saskatchewan Health.

Flow

Alcohol and Drug Services staff complete admission and discharge forms for clients providing they have been deemed to have had a contact with a “significant” treatment component. The forms are collated and forwarded to HISC, Saskatchewan Health at the end of the intake month. Data are entered into the ADCIS and error sheets, for missing or incorrect information, are forwarded to the reporting agency quarterly. Service providers are expected to return corrections within two weeks.

Availability

Program statistics are reported in a preliminary format quarterly with an annual report issued after April 1st. Data is available six months after the end of the fiscal year.

Limitations

Concerns include reporting inconsistencies, regional acceptable standards of practice, database inconsistency and frequency of self-report to treatment.

References

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Performance Management Accountability Indicators

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- Noel, N.E., B.S. McCrady, R.L. Stout and H. Fisher-Nelson. 1987. "Predictors of attrition from an outpatient alcoholism treatment program for couples". *Journal of Studies on Alcohol* 48(3): 229-235.

Indicator Name Reference List

- **Provision of appropriate and quality care to alcohol and drug clients requiring residential care, measured by (1) percentage of clients completing treatment**
 - Accountability Document (2003/2004)
- **Alcohol and drug inpatient treatment completion rates**
 - Core Indicators for Progress & Results (2003/2004)
 - Performance Management Accountability Indicators (February 16 and 18, 2005 versions)
- **Provision of accessible, appropriate and effective care to alcohol and drug clients requiring residential care (detoxification and/or inpatient and/or long term residential), measured by (1) percentage of clients completing treatment**
 - Accountability Document (2004/2005)
- **Alcohol and drug inpatient treatment completion rate per 100 admissions**
 - Accountability Document (2005/2006 onwards)
 - Performance Management Accountability Indicators (March 16, 2005 version onwards)

Average wait time for admission to alcohol and drug inpatient services

Section:	Program-Specific Indicators
Sub-Section:	Mental Health and Addiction Services
Category:	Health System Performance
Type of Measure:	Efficiency
Status:	Active (since 2005/2006) Quarterly Performance Management Report ("Dashboard") measure (starting 2006/2007)
Definition:	Average time in days from approval for admission to an alcohol and drug services inpatient program to actual admission.

Template Content Last Changed: April 21, 2006

Interpretation

Rationale and Notes for Interpretation

Temporal access or waiting time is an important dimension of accessibility. Delays in service can result in harm to persons exhibiting alcohol and drug addiction and their families as well as discouraging future treatment seeking behaviour.

Targets / Benchmarks

To be determined.

Contributing Factors

- Service volumes.
- Social stability and support.
- Spousal and/or family support.

Impact on Other Indicators

To be determined.

Potential for Action and Influence

To be determined.

Data Tables

Please see the corresponding section in the document "Performance Management Accountability Indicators: Data Tables".

Technical Specification

Method of Calculation

Calculation

The total number of days wait from approval for admission to admission to an alcohol and drug services inpatient program for all clients registered for a specified time period (e.g. fiscal year) divided by the total number of clients receiving inpatient alcohol and drug services for that time period.

Numerator

The total number of days wait from approval for admission to admission to an alcohol and drug services inpatient program for all clients registered for a specified time period.

Denominator

The total number of clients receiving inpatient alcohol and drug services for a specified time period.

Inclusions / Exclusions

Inclusions:

- To be determined.

Exclusions:

- To be determined.

Data Source

Source

To be determined. Currently, wait times are calculated for the program review by surveying programs and requesting current wait times.

Flow

To be determined.

Availability

Data is currently not available.

Limitations

To be determined.

References

- Adderbrooke, W.M. and N.H. Rathod. 1990. "Relationship between waiting time and retention in treatment amongst substance abusers". *Drug and Alcohol Dependence* 26(3): 255-264.
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- Friedmann, P.D., S.C. Lemon, M.D. Stein and T.A. D'Aunno. 2003. "Accessibility of addiction treatment: results from a national survey of outpatient substance abuse treatment organizations". *Health Services Research* 38(3): 887-903.

Indicator Name Reference List

- **Provision of appropriate and quality care to alcohol and drug clients requiring residential care, measured by (2) average wait time – after admission is approved – for admission to services, by RHA**
 - Accountability Document (2003/2004)
- **Provision of accessible, appropriate and effective care to alcohol and drug clients requiring residential care (detoxification and/or inpatient and/or long term residential), measured by (2) average wait time – after admission is approved – for admission to services, by RHA**
 - Accountability Document (2004/2005)
- **Average wait time for inpatient alcohol and drug services**
 - Accountability Document (2005/2006)
 - Performance Management Accountability Indicators (May 21, 2005 version and earlier)
- **Average wait time for admission to alcohol and drug inpatient services**
 - Accountability Document (2006/2007 onwards)
 - Performance Management Accountability Indicators (April 21, 2006 version onwards)

MEDICAL/PHYSICIAN SERVICES – OTHER

No active indicators.

PROGRAM SUPPORT SERVICES

Program Support Services includes board costs, executive, finance, human resources (HR), information technology (IT), and communications.

Expenditures in program support funding pool as a percentage of total RHA operating expenditures

Section:	Program-Specific Indicators
Sub-Section:	Program Support Services
Category:	Organizational Effectiveness
Type of Measure:	Financial
Status:	Active (since 2004/2005) Quarterly Performance Management Report (“Dashboard”) measure (since 2004/2005)
Definition:	A region’s administrative expenditures, in the program support funding pool, expressed as a percentage of overall operating expenditures.

Template Content Last Changed: April 21, 2006

Interpretation

Rationale and Notes for Interpretation

Most Regional Health Authority staff provide services directly to patients/clients/residents. Other staff are needed to manage operations, hire employees, pay bills, and perform other corporate service functions. This indicator measures how much a region spends on administrative services relative to total operating costs. A higher value for this indicator suggests that a greater share of the region’s resources are spent on administration. In general, the goal of corporate management is to support the operations of the region at the lowest possible cost. A region that overspends on corporate services may be taking scarce resources away from patient care and other alternate uses of revenue.

Targets / Benchmarks

Targets were set beginning with the 2003/2004 fiscal year. Regional Health Authorities were expected to review opportunities for organizational efficiencies with an outcome that would see the Program Support Services Pool achieve a target of a predetermined percentage of total RHA operating expenditures. For all Regions except Keewatin Yatthé and Mamawetan Churchill River the target was set at 5%. The target for the other two regions was set at 12%.

Contributing Factors

- Over or under spending of administrative costs in comparison to the proportion of all operating expenditures.
- Misclassification of operating costs to the Program Support pool.

Impact on Other Indicators

None.

Potential for Action and Influence

Monitoring of administrative expenses as a percentage of total operating expenditures should alert the region to potential problems with these costs and should set in motion immediate corrective action.

Data Tables

Please see the corresponding section in the document "Performance Management Accountability Indicators: Data Tables".

Technical Specification

Method of Calculation

Calculation

Total operating costs in the Program Support Services Pool divided by the total regional operating costs, expressed as a percentage.

Numerator

Total operating costs in the Program Support Services Pool.

Denominator

Total regional operating expenditures.

Inclusions / Exclusions

Inclusions:

- Executive Offices and support staff
- Board of Directors
- Public Relations
- Finance
- Human Resources
- Information Technology
- Other – functional centres related to regional administration not captured in previous administrative categories or in program related functional centres.

Exclusions:

- Administrative costs directly associated with Acute Care, Supportive Care, and Community Based functional centres.

Source

Regional Health Authority quarterly revenue and expense statements. (NOTE: In the case of the fourth quarter, actual audited financial statement information is used.)

Flow

Regions are required to submit quarterly electronic revenue and expense statements to Saskatchewan Health.

Availability

Within 30 days of the end of the quarter.

Limitations

This indicator does not include administrative costs directly associated with Acute Care, Supportive Care, and Community Based functional centres in accordance with the Guidelines for Management Information Systems in Canadian Health Service Organizations published by the Canadian Institute of Health Information.

References

- Canadian Institute for Health Information (CIHI). 2006. "Guidelines for Management Information Systems in Canadian Health Service Organizations – 2006 (MIS Guidelines 2006)" (Financial Indicators section). Ottawa, Ontario: CIHI.
- Canadian Institute for Health Information (CIHI). 2003. "Moving Toward the Reporting of Hospital Financial Performance Indicators 1999-2000 to 2001-2002". Ottawa, Ontario: CIHI.
- Ontario Hospital Association and the Government of Ontario. September 2005. "Hospital Report 2005: Acute Care".
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- Saskatchewan Health. March 31, 2004. Deputy Minister's letter to Regional Health Authority Board Chairs regarding the Department of Health's Estimates and the 2004-05 Accountability Document.

Indicator Name Reference List

- **Administrative spending from quarterly reports and annual report**
 - Accountability Document (2003/2004)
- **Administrative expenditures in program support funding pool as a percent of overall base (total) operating funds**
 - Accountability Document (2004/2005)
- **Administrative expenditures in program support funding pool as a percentage of overall base operating funds**
 - Accountability Document (2005/2006)
 - Performance Management Accountability Indicators (May 21, 2005 version and earlier)
 - Performance Management Dashboard (2004/2005)
- **Expenditures in program support funding pool as a percentage of total RHA operating expenditures**
 - Accountability Document (2006/2007 onwards)
 - Performance Management Accountability Indicators (April 21, 2006 version onwards)
 - Performance Management Dashboard (2005/2006 onwards)

HEALTH STATUS AND OUTCOME INDICATORS

This section contains health status and health outcome indicators. These indicators provide a broad view of the health status of the health region's population (for example life expectancy, infant mortality) and health service outcomes (e.g. diabetes prevalence).

Infant mortality rate per 1,000 live births

Section:	Health Status and Outcome Indicators
Sub-Section:	Not applicable.
Category:	Health Status
Type of Measure:	Outcome
Status:	Active (since 2003/2004)
Definition:	The number of children who die in the first year of life, expressed as a rate per 1,000 live births occurring in a specified time period.

Template Content Last Changed: April 21, 2006

Interpretation

Rationale and Notes for Interpretation

The infant mortality rate is one of the most widely recognized indicators of the overall health of a population. It reflects not only the level of mortality, but also the health status and health care of a population, the effectiveness of preventive care and the attention paid to maternal and child health, as well as broader social factors such as maternal education, smoking and relative deprivation.

An infant death serves as a warning of possible deficiencies in the physical and socio-economic environment, nutrition, education, or health of a community. Because infant deaths are rare, their occurrence signals a need to carefully evaluate the surrounding actions and events. To decrease the rate of infant deaths in a community requires more than an increase in availability and accessibility of health care resources. Infant mortality is also a social problem, and thus a reduction in the infant death rate requires a multi-faceted approach.

The standard infant mortality rate does not take into consideration such factors as birth weight and severity or length of illness. The exclusion of certain categories of infants (e.g. less than 500 grams) can, therefore, alter the rates obtained. Recent research suggests that infants weighing less than 500 grams are not likely to live past their first birthdays, and indeed may die within the first few days of life. Thus, excluding these infants from mortality calculations might provide more stable and accurate rates across time. Statistics Canada, however, no longer reports weight-adjusted infant mortality rates (as of 2000), and to date, for reasons of consistency and convenience, the most recent data available at the regional level has not been weight-adjusted either.

The infant mortality rate for Saskatchewan was reported in the "Saskatchewan Comparable Health Indicators Report 2004" (Saskatchewan Health, 2004), but commentary was not provided. Technical specifications can be found in section 38-HLT of "Considerations for data production for reporting comparable health indicators in November 2004" (Performance Reporting Technical Working Group (PRTWG), 2004).

Targets / Benchmarks

To be determined. International targets have been established by the Organisation for Economic Co-operation and Development (OECD).

Contributing Factors

- **Low birth weight:** This is the principal factor associated with infant mortality, because low birth weight babies account for the majority of all neonatal deaths.
- **Lack of prenatal care or late entry into prenatal care:** Timely and continuous prenatal care ensures screening to detect threats to the mother and fetus.
- **Substance use:** Exposure to alcohol and drugs can be harmful to the fetus. Smoking has been linked to an increased likelihood of having a low birth weight baby and is a factor in Sudden Infant Death Syndrome (SIDS).
- **Nutrition / diet during pregnancy:** Good nutrition can contribute to improved birth outcomes. Poor maternal nutrition may result in an increased risk of having a low birth weight baby.
- **Congenital Anomalies:** Infants born with certain non-trivial congenital anomalies are at increased risk for death, as well as disability later in life.
- **Age of mother at pregnancy:** Adolescents and women over 40 are at increased risk for having low birth weight babies.
- Local factors may contribute to disparities in the distribution of infant mortality rates at the regional level.

Impact on Other Indicators

To be determined.

Potential for Action and Influence

To be determined.

Data Tables

Please see the corresponding section in the document "Performance Management Accountability Indicators: Data Tables".

Technical Specification

Method of Calculation

Calculation

The number of infant deaths over three consecutive years divided by total live births over the same three consecutive years, multiplied by 1,000.

Three consecutive years are used to reduce the effect of possible annual variation at the regional level due to small numbers.

Numerator

Number of infant deaths over three consecutive years.

Denominator

Total live births over the same three consecutive years.

Inclusions / Exclusions

Exclusions:

- Births to non-resident mothers, and infant deaths in non-residents.

Data Source

Source

Vital Statistics birth and death data, Health Registration and Vital Statistics Branch (HRVSB), Saskatchewan Health

Flow

Health Registration and Vital Statistics Branch (HRVSB) and Health Information Solutions Centre (HISC), Saskatchewan Health create files annually (around March) from the Vital Statistics Information System for births and deaths that occurred in the previous calendar year. These files include births and deaths of Saskatchewan residents as reported on (a) Saskatchewan and Alberta Vital Statistics records for births and deaths in those provinces, and (b) Saskatchewan hospital claims records for births and deaths elsewhere. Births and deaths occurring outside hospitals in places other than Saskatchewan and Alberta are excluded. The data are classified by place of residence.

HISC creates tables based on these files for the RHA Utilization CD.

Availability

Annually. Data is available one year after the end of the calendar year.

This indicator, however, will be updated only every three years.

Limitations

To be determined.

References

Performance Reporting Technical Working Group (PRTWG). 2004. "Considerations for data production for reporting comparable health indicators in November 2004". (secure.cihi.ca/cihiweb/en/downloads/Considerations_for_Data_Production_November_15_ENG_FINAL.pdf)

Saskatchewan Health. 2004. "Saskatchewan Comparable Health Indicators Report 2004". (www.health.gov.sk.ca/mc_comparable_hlth_indicators_04.html)

Indicator Name Reference List

- **Infant mortality**
 - Accountability Document (2003/2004 and 2004/2005)
- **Infant mortality rates**
 - Core Indicators for Environmental Scan (2003/2004)
- **Infant mortality rate**
 - Performance Management Accountability Indicators (February 16 and 18, 2005 versions)
- **Infant mortality rate per 1,000 live births**
 - Accountability Document (2005/2006 onwards)
 - Performance Management Accountability Indicators (March 16, 2005 version onwards)

Low birth weight and high birth weight rates per 100 live births

Section:	Health Status and Outcome Indicators
Sub-Section:	Not applicable.
Category:	Health Status
Type of Measure:	Outcome
Status:	Active (since 2004/2005)
Definition:	The number of new-born babies who are at an increased risk of morbidity or mortality related to their weight at birth being low (less than 2,500 grams), or high (more than 4,000 grams), expressed as a percentage of live births.

Template Content Last Changed: April 21, 2006

Interpretation

Rationale and Notes for Interpretation

Low birth weight is a widely used measure of the health status of a population, and is considered by the World Health Organization (WHO) to be an essential indicator in monitoring overall progress towards attaining a better state of health. Less attention is typically given to the rate of high birth weight babies, despite the fact that it is related to an increase in (type II) diabetes (Wei et al., 2003), asthma (Sin et al., 2004), and higher rates of neonatal mortality. High birth weight rates are also higher among Aboriginal populations and may, therefore, be a significant issue for this group.

Because birth weight is linked to gestational age and to multiple births, live births occurring before the 37th week and after the 41st week of pregnancy, as well as those resulting in twins, triplets, etc. might be excluded in order to increase the comparability of figures.

It is unclear, from current research, whether some of the risk associated with macrosomia (high birth weight babies) may be genetic in nature, and thus, not amenable to prevention.

The low birth weight rate for Saskatchewan was reported in the "Saskatchewan Comparable Health Indicators Report 2004" (Saskatchewan Health, 2004), but commentary was not provided. Technical specifications can be found in section 39-HLT of "Considerations for data production for reporting comparable health indicators in November 2004" (Performance Reporting Technical Working Group (PRTWG), 2004).

Targets / Benchmarks

To be determined.

Contributing Factors

- **Substance abuse:** Substance abuse has been linked to an increased risk of having a low birth weight baby.
- **Inadequate nutrition / diet during pregnancy:** Good nutrition contributes to improved birth outcomes. A poor diet may result in either low or excessive weight gain for the mother during pregnancy and for the fetus as well.
- **Pre-pregnancy weight and pattern of weight gain during pregnancy:** Maternal obesity is highly correlated with an increased risk of gestational diabetes. Women who are of low weight when

Performance Management Accountability Indicators

becoming pregnant and who have below normal weight gain during pregnancy have an increased risk of giving birth to a low birth weight baby.

- **Gestational diabetes:** Women who suffer from gestational diabetes are more likely to have high birth weight babies. While gestational diabetes occurs in only about 3% of all pregnancies, the estimated rate of macrosomia (high birth weight babies) among women who go untreated for this condition is 30% while the rate for women who are treated for diabetes during pregnancy is estimated to be 12%.
- **Gestational age:** Babies who are born premature (prior to 37 weeks gestation) are more likely to be of low birth weight, while those who are born post-mature (42 weeks or more gestation) are more likely to exhibit high birth weight.
- **Age of mother at pregnancy:** Increased maternal age (i.e. 40 years or more) is a risk factor for gestational diabetes. As well, teens and women over 40 are at increased risk for having low birth weight babies.
- **Ethnicity:** Because of acculturation and accompanying changes in lifestyle and eating habits, Aboriginal individuals may be at greater risk for obesity and diabetes.
- **Socio-economic status (SES):** Directly via nutritional deprivation, and indirectly through relationship with educational status, mothers from low SES backgrounds may be at increased risk of delivering an at-risk birth weight baby.
- Local factors may contribute to disparities in the distribution of at-risk birth rates at the regional level.

Impact on Other Indicators

A high rate of at-risk birth weight may contribute to:

- **Infant mortality:** Low birth weight is the principal risk factor associated with neonatal mortality. High birth weight is associated with several perinatal complications, including an increased risk of neonatal death. Very low birth weight infants are almost always born premature, and the probability of death is very high, even with intensive medical care.
- **Child health and development:** Low birth weight children experience a substantially higher incidence of cerebral palsy than children born of normal weight. As well, low birth weight is a risk factor for a number of other conditions, including deafness, blindness, epilepsy, chronic lung disease, learning disabilities, and attention deficit disorder.
- **Increased risk of diabetes in successive generations:** A family history of diabetes is one risk factor for the development of diabetes.
- **Maternal death rate:** Due to complications of labour and delivery for high and low birth weight births.
- **Caesarean section rate:** A result of non-progressive labour and problems with maternal pelvic size in high birth weight births and of pregnancy complications and premature birth in low weight births.
- Increased risk of labour and delivery complications and birth injuries (high birth weight).
- Increased risk of induced labour.

Potential for Action and Influence

To be determined.

Data Tables

Please see the corresponding section in the document "Performance Management Accountability Indicators: Data Tables".

Technical Specification

Method of Calculation

Calculation

The number of live births over three consecutive years weighing less than 2,500 grams, respectively more than 4,000 grams, divided by total live births over the same three consecutive years, multiplied by 100.

Three consecutive years are used to reduce the effect of possible annual variation at the regional level due to small numbers.

Numerator

For low birth weight, the number of newborns over three consecutive years weighing less than 2,500 grams at birth.

For high birth weight, the number of newborns over three consecutive years weighing more than 4,000 grams at birth.

Denominator

Total live births over the same three consecutive years with known birth weight.

Inclusions / Exclusions

Exclusions:

- Births occurring outside of hospitals in places other than Saskatchewan and Alberta.
- Births with unknown birth weight.

Data Source

Source

Vital Statistics birth data, Health Registration and Vital Statistics Branch (HRVSB), Saskatchewan Health

Flow

Health Registration and Vital Statistics Branch (HRVSB) and Health Information Solutions Centre (HISC), Saskatchewan Health create files annually (around March) from the Vital Statistics Information System for births and deaths that occurred in the previous calendar year. These files include births and deaths of Saskatchewan residents as reported on (a) Saskatchewan and Alberta Vital Statistics records for births and deaths in those provinces, and (b) Saskatchewan hospital claims records for births and deaths elsewhere. Births and deaths occurring outside hospitals in places other than Saskatchewan and Alberta are excluded. The data are classified by place of residence.

HISC creates tables based on these files for the RHA Utilization CD.

Availability

Annually. Data is available one year after the end of the calendar year.

This indicator, however, will be updated only every three years.

Limitations

Weight information may not always be available for births occurring outside of Saskatchewan. The reliability of the birth weight recorded on the birth certificate depends in part on the accuracy of the measuring device and the time following birth in which this measurement is made. Furthermore, the denominator is adjusted so that only those cases where birth weight is known are included. Data by time of release may be one to two years old.

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Indicator Name Reference List

- **At risk birth rate**
 - Accountability Document (2003/2004 and 2004/2005)
- **At-risk birth weight rates**
 - Performance Management Accountability Indicators (February 16 and 18, 2005 versions)
- **Low birth weight and high birth weight rates per 100 live births**
 - Accountability Document (2005/2006 onwards)
 - Performance Management Accountability Indicators (March 16, 2005 version onwards)

Potential years of life lost per 100,000 population (age 0 to 74 years) by major causes of death

Section: Health Status and Outcome Indicators

Sub-Section: Not applicable.

Category: Health Status

Type of Measure: Outcome

Status: Active (since 2005/2006)

Definition: Assuming that 75 years is the average full life span, potential years of life lost (PYLL) measures the number of years of life not attained due to premature deaths from any cause in a population for a given period.

Template Content Last Changed: April 21, 2006

Interpretation

Rationale and Notes for Interpretation

PYLL reflects the toll taken by the major causes of premature death. The indicator represents the number of years not lived by an individual from birth to age 75, and thus, giving greater weight to causes of death occurring at a younger age than to those at later ages. By emphasizing the loss of life at an early age, PYLL focuses attention on the need to deal with the major causes of premature deaths like childhood cancer, injuries, suicide and cardiovascular disease. Lower rates indicate the success in preventing premature loss of life, with its consequent loss to society in terms of social and economic productivity.

PYLL remains a useful measure for assessing health initiatives, since deaths in younger ages can, in theory, be prevented or postponed.

The upper age limit of 75 set for calculation of PYLL corresponds approximately to the life expectancy of Canadians for both sexes combined.

Among a total of one million PYLL reported in Canada for 1996, 30% were due to cancer, 19% due to accidents and 13% due to heart diseases (Health Canada et al., 1999).

The top five causes of premature deaths in Saskatchewan between 1995 and 1999 were motor vehicle collisions, suicides, lung cancers, acute myocardial infarctions and ischaemic heart disease (Saskatchewan Health, 2005).

Potential years of life lost (PYLL) numbers for Saskatchewan were reported in the "Saskatchewan Comparable Health Indicators Report 2004" (Saskatchewan Health, 2004), but commentary was not provided:

- Potential years of life lost due to suicide (54-HLT); and,
- Potential years of life lost due to unintentional injury (55-HLT).

Technical specifications can be found in sections 54-HLT and 55-HLT of "Considerations for data production for reporting comparable health indicators in November 2004" (Performance Reporting Technical Working Group (PRTWG), 2004).

Targets / Benchmarks

To be determined.

Contributing Factors

- **Gender:** PYLL is affected by gender, as premature death is generally higher in men than women. In 1996, Canadian males accounted for 65% of total PYLL, and when expressed as a rate, the male rate per 100,000 was almost twice the female rate. This was largely a function of sex differences in rates of heart disease, suicide and accidents (Health Canada et al., 1999).
- **Age:** Age contributes significantly to PYLL, mainly due to the age differences in deaths due to various causes of deaths. Deaths in older age groups, and their respective causes, may not be as evident in the PYLL indicator for youth. For example, PYLL due to suicide were concentrated in the age group 25-44, and PYLL due to accidents were concentrated in the age group 25-34, while PYLL for cancer and heart disease were greatest for age group 45-64 in 1996 (Health Canada et al., 1999).
- **Ethnicity** has also been indicated as contributing to PYLL rates as research has shown that certain diseases more frequently affect minority populations. PYLL rates due to all causes and mainly due to injuries are higher in populations of high-Aboriginal regions than in those of low-Aboriginal health regions in Canada (Statistics Canada, 2004).
- **Geographic variations** in PYLL have been observed. Many of the factors associated with the adoption of certain lifestyle behaviours and access to health services are likely to contribute to disparities in PYLL based on geographic location.

Performance Management Accountability Indicators

- **Other risk factors** such as smoking, excessive alcohol consumption, physical inactivity, hypertension, obesity, nutrient deficiencies (especially low intakes of fruits and vegetables), high cholesterol levels, illicit drug use, occupational hazards and unsafe sex have quantifiable roles in rates of premature mortality.
- **Socio-economic status** has similar impacts on premature mortality as it does on other measures of morbidity and mortality.
- **Local environmental factors** may contribute to health disparities in the distribution of PYLL at the regional level.

Impact on Other Indicators

Changes in PYLL can be reflected in the rates of:

- injuries and accidents;
- infectious diseases; and,
- conditions known to be partially attributable to lifestyle factors such as cardiovascular disease, diabetes, and certain cancers.

Potential for Action and Influence

As an indicator of premature deaths, PYLL is influenced by a number of medical and non-medical health determinants. PYLL is increased particularly by deaths in children and youth. In order to lower the overall provincial PYLL, it is necessary to put preventive initiatives in place to target these health determinants that can potentially cause deaths in early ages. PYLL is also a quality of care indicator, reflecting the level of clinical care provided to prevent deaths where possible. When broken down by causes of deaths, PYLL is helpful in monitoring the impact and progress of chronic disease initiatives. Effective preventive initiatives as well as adequate clinical care when applied to causes of premature deaths, such as motor vehicle collisions, suicides, lung cancers, acute myocardial infarctions and ischaemic heart disease, will result in lowered PYLL.

Data Tables

Please see the corresponding section in the document "Performance Management Accountability Indicators: Data Tables".

Technical Specification

Method of Calculation

Calculation

For each cause of death and each age group (i.e. <1, 1-4, 5-9, ..., 70-74), PYLL is calculated as the number of deaths over three consecutive years multiplied by the difference between age 75 and the median age at death. These values are summed over all age groups to obtain the PYLL for the specific cause of death.

The rate per 100,000 population is calculated by dividing the total PYLL for the specific cause of death by three times the population estimate of the middle year of the three-year period, and multiplying by 100,000.

Example calculation (for injuries as a specific cause of death):

- Consider the 10-14 age group:
 - a. Number of deaths over three consecutive years due to injuries in this age group = 185
 - b. Mean age at death for that age group = 12 years
 - c. $75 - \text{mean age at death (12)} = \text{years lost (63)}$

Performance Management Accountability Indicators

- d. $PYLL = \text{number of deaths (185)} \times \text{years lost (63)} = 11,655$
- Sum over all age groups to get total PYLL due to injury deaths
 - To get the rate per 100,000 population, divide by three times the population estimate of the middle year of the three-year period and multiply by 100,000.

Numerator

For each cause of death and each age group (i.e. <1, 1-4, 5-9, ..., 70-74), PYLL is calculated as the number of deaths over three consecutive years multiplied by the difference between age 75 and the median age at death. These values are summed over all age groups to obtain the PYLL for the specific cause of death.

Denominator

Three times the (Statistics Canada) population estimate of the middle year of the three-year period.

Inclusions / Exclusions

Inclusions:

- All deaths from ages 0 to 74.

Exclusions:

- Deaths over age 74.

Source

Statistics Canada:

- Vital Statistics, Death Database; and,
- Vital Statistics, Demography Division (population estimates).

Flow

The Vital Statistics – death database collects data annually from all provincial and territorial vital statistics registries on all deaths in Canada. Health Registration and Vital Statistics Branch (HRVSB), Saskatchewan Health creates files annually (around March) from the Vital Statistics Information System for deaths that occurred in the previous calendar year. All deaths occurring in the province are included, regardless of the deceased's place of permanent residence. Data are sent to Statistics Canada where data from all provincial / territorial sources (linkages to US death registries are also made) are aggregated, and deaths are reclassified based on place of residence.

Availability

Data is released intermittently by Statistics Canada. The most recent data available is based on 2000 through 2002 death data, and 2001 population estimates (www.statcan.ca/english/freepub/82-221-XIE/2005002/hlthstatus/deaths4.htm).

Limitations

Accurate death registrations are necessary in order to correctly identify the major causes of premature death. PYLL is a good indicator of specific causes of deaths, if disaggregated by socio-economic status (SES) and/or other measures.

The rates should be adjusted in terms of a standard population to eliminate the effect of different age structures (Chevalier et al., 1995).

As a measure of premature mortality, PYLL underestimates the importance of other diseases that contribute to, but are not recorded as, the underlying cause of death.

PYLL is not necessarily a good indicator at an aggregate level. For example, a high PYLL can result from a small number of younger people or a large number of older people dying.

References

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- Statistics Canada. 2004. "Premature mortality in health regions with high Aboriginal populations". *Health Reports* 15(1): 51-59. Ottawa, Ontario: Statistics Canada. (Catalogue Number: 82-003-XIE)

Indicator Name Reference List

- **Person years of lost life**
 - Accountability Document (2003/2004, 2004/2005 and 2005/2006)
 - Performance Management Accountability Indicators (May 21, 2005 version and earlier)
- **Potential years of life lost per 100,000 population (age 0 to 74 years) by major causes of death**
 - Accountability Document (2006/2007 onwards)
 - Performance Management Accountability Indicators (April 21, 2006 version onwards)

Disability-free life expectancy (at birth and at age 65 years)

Section: Health Status and Outcome Indicators

Sub-Section: Not applicable.

Category: Health Status

Type of Measure: Outcome

Status: Active (since 2004/2005)

Definition: Disability-free life expectancy (DFLE) at birth is the number of years an average individual would be expected to live, starting from birth, free of activity limitation, on the basis of mortality statistics and disability prevalence patterns by age and sex for a given observation period, typically a calendar year.

Performance Management Accountability Indicators

Disability-free life expectancy at age 65 years is the average number of additional years a person who has reached the age of 65 years would expect to further live free of activity limitations.

Template Content Last Changed: April 21, 2006

Interpretation

Rationale and Notes for Interpretation

Definitions of disability are based on the World Health Organization's model whereby disability is a process wherein individual conditions (impairments) result in a lack or inability to perform activities considered normal for a human being and where this lack may result from or be amplified by conditions or expectations in the social environment. As a result Canadian survey data ask whether respondents have a condition that limits one or more normal daily activities or that creates limitations at home, at work or school, or in other activities. (Health Canada, 2002).

Disability-free life expectancy (DFLE) is an increasingly used indicator, and complements conventional life expectancy measures. It was developed to reflect the fact that not all years of a person's life are lived in perfect health, therefore, increased years of DFLE. Chronic disease, frailty and disability tend to become more prevalent at older ages; as such, populations with higher life expectancies need not be healthier. Disability-free life expectancy is a more comprehensive indicator than life expectancy because it introduces the concept of quality of life. It is used to distinguish between years of life free of any activity limitation and years experienced with at least one activity limitation. To that end, disability-free life expectancy establishes a threshold based on the nature of such limitations. Years of life lived in conditions above this threshold are counted in full. Those lived in conditions below the threshold are not counted. Thus, the emphasis is not exclusively on the length of life, as is the case for life expectancy, but also on the quality of life. Increases in DFLE may reflect improvements in the prevention and management of chronic diseases.

Limitations associated with DFLE are much the same as for life expectancy. For example, although the DFLE measures are reliable and comparable, they are not very sensitive, and are not likely to change substantially from year to year or from jurisdiction to jurisdiction in response to events or health system changes. In addition, DFLE as a global health status measure is dependent on many circumstances beyond the performance of the health system and the appropriateness of health services. The determinants of health are well documented and include the social and physical environments, personal health practices, biology and genetics, and health services.

"Health adjusted life expectancy" (HALE) was suggested during the 2004/2005 indicator development and review process as a more positively focused alternate indicator for DFLE. HALE combines age- and sex-specific health status and mortality measures into a single statistic, and represents the number of expected years of life equivalent to years lived in full health, based on the average experience in a population. In this sense, it is a measure of both quantity and quality of life, and not a measure of the programs being provided. HALE was included in the "Saskatchewan Comparable Health Indicators Report 2004" (Saskatchewan Health, 2004), but data are currently only available at the provincial level. Please see pages 10 to 16 of the report and section 37-HLT of the report's technical specifications appendix for more information. Technical specifications can also be found in "Considerations for data production for reporting comparable health indicators in November 2004" (Performance Reporting Technical Working Group (PRTWG), 2004). It was decided that DFLE should be kept as an accountability indicator for now, and to replace it with HALE when regional data become available.

Targets / Benchmarks

To be determined.

Contributing Factors

- Several elements contribute to DFLE. The preventative success of behaviourally manageable lifestyle factors such as body weight, physical activity, nutritional practices, tobacco and alcohol use are all likely to contribute to the likelihood of being disability-free for a longer period of time.
- Higher rates of depression have also been associated with shorter disability-free life.
- Communities where educational attainment is markedly low have also been reported as having lower disability-free life expectancies.
- Geographical factors too play a role. People living in large urban centres and metropolitan areas tend to have longer disability-free life expectancies.
- **Sex:** Men and women tend to experience different patterns of morbidity. In comparison to the large gap in life expectancy between women and men, the number of extra years that women live disability-free than men is somewhat smaller. The trend is indicative of different patterns of chronic disease development in men and women (Belanger et al., 2002).
- Local factors may contribute to disparities in the distribution of disability-free life expectancy at the regional level.

Impact on Other Indicators

- High rates of DFLE ultimately contribute to lower rates of mortality and morbidity.
- Specific forms of disability also require specific forms of treatment; as such, DFLE can have an impact upon several other indicators such as hip and knee replacement rates, diagnostic and medical imaging services, and other surgical procedures.
- High rates of DFLE also have the potential to influence home care and community care services, and reduce the burden of care placed on caregivers.

Potential for Action and Influence

To be determined.

Data Tables

Please see the corresponding section in the document "Performance Management Accountability Indicators: Data Tables".

Technical Specification

Method of Calculation

Calculation

Disability-free life expectancy is calculated using Sullivan's method, which computes disability-free life indices from current abridged life tables and current age-specific rates for disability days in the population.

Within each age interval, the number of life-years lived is multiplied by the average fraction of the year persons of that age group are disability-free. The result of these calculations is the set of life-years free of disability in the given age interval (for more detail see Sullivan, 1971).

Numerator

Not applicable.

Denominator

Not applicable.

Inclusions / Exclusions

Exclusions:

- Non-residents are excluded from the death and population estimates used for the life tables.
- Individuals living on military bases or First Nation reserves (they are treated implicitly as having the same rates of disability as the rest of the population).

Data Source

Source

Statistics Canada:

- Vital Statistics, Birth and Death Databases;
- Vital Statistics, Demography division (population estimates); and,
- the 1996 census (20% sample).

Flow

The Vital Statistics – birth and death databases collect data annually from all provincial and territorial vital statistics registries on all births and deaths in Canada. Health Registration and Vital Statistics Branch (HRVSB), Saskatchewan Health creates files annually (around March) from the Vital Statistics Information System for births and deaths that occurred in the previous calendar year. All births and deaths occurring in the province are included, regardless of the place of permanent residence. Data are sent to Statistics Canada where data from all provincial / territorial sources (linkages to US birth and death registries are also made) are aggregated, and births and deaths are reclassified based on place of residence. Data from survey questions are used to calculate rates of disability in the population by Statistics Canada.

Availability

Statistics Canada is no longer calculating this measure. The most recent data available is based on 1996 census data.

Limitations

DFLE estimates will vary according to both the concepts from which they are based and the surveys from which the data are extracted. Variability in the data, as often indicated by wide confidence intervals, leads to caution in interpretation and comparison being warranted. The size of the population of excluded groups (such as First Nations) can also have an effect on estimations of DFLE.

References

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- Health Canada. 2002. "Advancing the Inclusion of People with Disabilities". Ottawa, Ontario: Government of Canada. (chapter 2)
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Shields, M. and S. Tremblay. 2002. "The health of Canada's communities". *Health Reports (supplement)* 13: 9-32. Ottawa, Ontario: Statistics Canada. (Catalogue Number: 82-003)

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Indicator Name Reference List

- **Disability-free life expectancy**
 - Accountability Document (2003/2004 and 2004/2005)
- **Disability-free life expectancy (at birth and at age 65 years)**
 - Accountability Document (2005/2006 onwards)
 - Performance Management Accountability Indicators (all versions to date)

Life expectancy (at birth and at age 65 years)

Section: Health Status and Outcome Indicators

Sub-Section: Not applicable.

Category: Health Status

Type of Measure: Outcome

Status: Active (since 2003/2004)

Definition: Life expectancy is the number of years a person would be expected to live, starting from birth (for life expectancy at birth) or at age 65 years (for life expectancy at age 65 years). It is based on mortality statistics by age and sex for a given observation period, typically a calendar year.

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Interpretation

Rationale and Notes for Interpretation

Life expectancy is a widely used indicator of the health of a population. It is not the number of years a particular newborn (or individual currently age 65 years) can actually expect to live. In developed countries, life expectancy is related to socio-economic factors such as poverty and education levels. Life expectancy is higher for women than for men, and may be related to differences in risk-taking behaviour, use of health care services, and the adoption of healthier lifestyles. It should be noted that life expectancy is an indicator of the quantity rather than quality of life. Increases in life expectancy that are associated with increased prevalence of serious debilitating disease may not be judged to be as worthwhile as the same increase in life expectancy where the added years are lived in good health.

Only mortality rates for the observation period are used, and these are averages for the entire population. Historically, mortality rates in Canada have been falling. As a result, life expectancy estimates for the population are increasing. However, individuals' life circumstances vary. As a result, if an individual had been a long time smoker, or had a family history of certain diseases, these factors could contribute to a shorter life for the individual.

Performance Management Accountability Indicators

Although the life expectancy measures are reliable and comparable, they are not very sensitive, and are not likely to change substantially from year to year or from jurisdiction to jurisdiction in response to events or health system changes. In addition, as a global health status measure, life expectancy is dependent on many circumstances beyond the performance of the health system and the appropriateness of health services. The determinants of health are well documented and include the social and physical environments, personal health practices, biology and genetics, and health services.

The indicator does not measure direct and intermediate outputs of programs to reduce mortality, and does not describe mechanisms by which interventions on population health have an impact.

The life expectancy rate for Saskatchewan was reported in the "Saskatchewan Comparable Health Indicators Report 2004" (Saskatchewan Health, 2004), but commentary was not provided. Technical specifications can be found in section 36-HLT of "Considerations for data production for reporting comparable health indicators in November 2004" (Performance Reporting Technical Working Group (PRTWG), 2004).

Targets / Benchmarks

To be determined.

Contributing Factors

- The role of income on life expectancy is well documented. Canadians in the highest quartile of income distributions can expect to live longer than those in the lowest quartile.
- First Nations people and northern communities appear to have significantly lower life expectancy than southern service areas.
- Aspects of quality of life, such as presence of activity limitations, also have an impact on life expectancy.
- Given evidence of poorer health status in rural areas, differences in life expectancy may also be anticipated along rural-urban lines (Mitura and Bollman, 2003).
- Lack of access, or equity of access, to health care services may contribute to life expectancy.
- Behavioural determinants of health such as nutrition, body weight, physical activity and smoking all play a role in expectations of increasing life expectancy.
- **Sex:** In general women tend to live longer than men, since men tend to have higher rates of mortality from preventable causes such as smoking and accidents. However, there is some indication that the sex-gap in all-cause mortality has been narrowing since the 1980s. This is mainly attributable to a decrease in the sex ratio for smoking-related causes of death such as lung cancer, acute myocardial infarction (AMI), and chronic obstructive pulmonary disease (COPD) (DesMeules and Manuel, 2003). Furthermore, despite having a relatively longer life expectancy than men, other disparities exist for women in terms of regional variations and socio-economic factors such as education and income.
- Local factors may contribute to disparities in the distribution of life expectancy at the regional level.

Impact on Other Indicators

Although a measure of quantity of years rather than quality, increasing rates of life expectancy can be expected to have an impact on the proportion of elderly people in the population. As such life expectancy can impact upon other indicators associated with aging such as:

- prevalence of chronic conditions;
- mortality rates for AMI and stroke, and other diseases that are more common in the elderly;
- disability-free life expectancy;
- utilization of long-term care and home care; and,

- utilization of hospital services, diagnostic and medical equipment, and potential contribution to wait times for select procedures (e.g. hip and knee replacement rates).

Potential for Action and Influence

To be determined.

Data Tables

Please see the corresponding section in the document "Performance Management Accountability Indicators: Data Tables".

Technical Specification

Method of Calculation

Calculation

Life expectancy is derived from mortality rates using Greville's method (which assumes a constant change in the age-specific death rate) for abridged life tables, using five-year age groupings of both population counts and mortality rate (for more detail see Greville, 1943).

Numerator

The number of person years lived by the cohort at a specified age and all subsequent ages (calculated from the addition of the number of person years lived by the cohort during the age interval from the lowest to highest age in that age grouping, plus the number of person years lived in the remaining subsequent age cohorts).

Denominator

The number alive at the specified age (out of an initial cohort of 100,000).

Inclusions / Exclusions

Exclusions:

- None.

Data Source

Source

Statistics Canada:

- Vital Statistics, Birth and Death Databases;
- Vital Statistics, Demography division (population estimates); and,
- the 2001 census.

Flow

The Vital Statistics – birth and death databases collect data annually from all provincial and territorial vital statistics registries on all births and deaths in Canada, which are used in conjunction with census population estimates to create life tables. Health Registration and Vital Statistics Branch (HRVSB), Saskatchewan Health creates files annually (around March) from the Vital Statistics Information System for births and deaths that occurred in the previous calendar year. All births and deaths occurring in the province are included, regardless of the place of permanent residence. Data are sent to Statistics Canada where data from all provincial / territorial sources (linkages to US birth and death registries are also made) are aggregated and life tables are reconstructed using Greville's method to estimate the probability of death. These estimates are then disseminated back to provinces and territories.

Availability

Statistics Canada calculates this measure every five years, based on the latest census. The most recent data available is based on the 2001 census.

Limitations

Data quality, particularly geographical coding of death certificates, poses the greatest difficulty in deriving accurate life tables for comparison between areas.

References

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Indicator Name Reference List

- **Life expectancy**
 - Accountability Document (2003/2004 and 2004/2005)
 - Core Indicators for Environmental Scan (2003/2004)
- **Life expectancy (at birth and at age 65 years)**
 - Accountability Document (2005/2006 onwards)
 - Performance Management Accountability Indicators (all versions to date)

Self-rated health status: percentage of population (age 12 years and over) who report their health as very good or excellent

Section: Health Status and Outcome Indicators

Sub-Section: Not applicable.

Category: Non-Medical Determinants of Health

Type of Measure: Outcome

Status: Active (since 2003/2004)

Definition: Percentage of the population age 12 years and over who report their health as very good or excellent. Responses are based on answers to the question, "In general, would you say your health is (excellent / very good / good / fair / poor)".

Template Content Last Changed: April 21, 2006

Interpretation

Rationale and Notes for Interpretation

Self-reported health is a general indicator of the overall health status of individuals. It can include what other measures may miss: incipient disease, disease severity, some aspects of positive health status, physiological / psychological reserve, social and mental function.

Self-reported health data are collected using a five point reporting scale, ranging from excellent to poor. Studies indicate that when individuals rate their health in response to this question, they tap into information that has important predictive power relating to chronic disease incidence, functional decline and ultimately survival. Numerous longitudinal studies have found that self-reported health is predictive of mortality even when more objective measures such as clinical evaluations are taken into account. Inconsistencies between self-reported health data from population surveys and best estimates from epidemiological studies (under-reporting of undiagnosed conditions, over-reporting of some conditions, lack of information on condition severity) may explain why measures of self-reported health do not have credibility with all groups. This indicator applies to individuals 12 years old and older living in private households.

There are a number of limitations associated with self-reported health information. The most obvious limitation is that the definition of health is left up to the individual; as a result the definition itself will differ from one person to another. This limitation becomes even more pronounced when cultural and sex differences are taken into consideration. Studies have shown that there are major cultural differences in the subjective assessment of health, with some cultures focusing their assessment exclusively on physical health and others adopting a more encompassing definition to include mental and spiritual well-being. Furthermore, men are more inclined to report a more positive assessment of health status, causing the measure of positive health for men to be overstated. Individual perceptions of health are likely to be multifactorial, and indeed subject to temporal changes. As such, several factors are likely to contribute to ratings of self-perceived health, which are often not measured concurrently in survey data (e.g. self-esteem, family relationships). As such, improvements in self-reported health may in fact tell us little about health system performance, and introduce the need for caution in making inferences about self-reported health in relation to improvements in managing mental and physical health or lifestyle factors.

The self-reported health status rate for Saskatchewan was included in the "Saskatchewan Comparable Health Indicators Report 2004" (Saskatchewan Health, 2004). Please see pages 4 to 9 of the report and

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section 65-HLT of the report's technical specifications appendix for more information. Technical specifications can also be found in "Considerations for data production for reporting comparable health indicators in November 2004" (Performance Reporting Technical Working Group (PRTWG), 2004).

Please see "Appendix D – Canadian Community Health Survey (CCHS)" for more information on using and interpreting CCHS data.

Targets / Benchmarks

To be determined.

Contributing Factors

- **Age:** Self-reported health tends to be influenced by age. Increasing age tends to lead to consideration of one's health as less than very good or excellent.
- **Sex:** This variable can interact with age. Adolescent girls tend to report lower levels of health than their male counterparts.
- **Mental health:** Depression has been associated with reduced odds of reporting excellent or very good health, especially in women.
- The prevalence of chronic conditions is reflected, to some degree, in perceived health status. The presence of one or more chronic conditions is associated with reduced odds of excellent or very good health being reported.
- **Socio-economic status:** Higher family income has been associated with better self-evaluations of health status.
- **Lifestyle factors:** Smoking, excessive drinking, and drug use have also been stated in some studies as being associated with lower ratings of self-perceived health. Physical activity and nutrition (measured by fruit and vegetable consumption greater than twice a day) are linked with higher levels of self-reported health in adolescence, perhaps reflecting a greater sense of self-competence as much as physical functioning. Conversely, a body mass index in the obese range reduces the odds of reporting excellent or very good health.
- Local factors may contribute to disparities in the distribution of self-rated health status at the regional level.

Impact on Other Indicators

- **Health service use:** Self-rated health, as a proxy measure of physical and mental health, may potentially have an impact on the rates of use of health services. People who feel they are in excellent or good health are less likely to feel the need to use health service resources.
- **Diagnostic tests:** Related to the above, self-perceptions of the self as healthy are likely to reduce the desire for diagnostic services.
- **Patient satisfaction:** Ratings of self-reported health as excellent or very good may translate into increased levels of satisfaction with health services and reduced perceptions of unmet needs.

Potential for Action and Influence

To be determined.

Data Tables

Please see the corresponding section in the document "Performance Management Accountability Indicators: Data Tables".

Technical Specification

Method of Calculation

Calculation

Estimated number of persons reporting excellent or very good health within a survey cycle for a specified jurisdiction divided by the total population age 12 years and over in that jurisdiction, expressed as a percentage (with weighting adjusted to reflect non-response).

Numerator

Estimated number of persons reporting excellent or very good health within a survey cycle for a specified jurisdiction (response categories are excellent, very good, good, fair, poor).

Denominator

Total population age 12 years and over for the specified jurisdiction.

Inclusions / Exclusions

Exclusions:

- Survey frame exclusions apply (persons living on First Nations Reserves and Crown Lands, full-time members of the Canadian Armed Forces, residents of certain remote regions, and children under 12 years of age are not sampled).

Data Source

Source

Canadian Community Health Survey (CCHS) – Saskatchewan Share File

Flow

Please see “Appendix D – Canadian Community Health Survey (CCHS)” for more information.

Availability

The survey is conducted bi-annually, and data is usually available within one year of survey completion. There are currently two years of data available: Cycle 1.1 (2000/2001) and Cycle 2.1 (2003).

Limitations

Please see “Appendix D – Canadian Community Health Survey (CCHS)” for more information on limitations.

References

- Chevalier, S., R. Choinière, M. Ferland, M. Pageau and Y. Sauvageau. 1995. “Community Health Indicators: Definitions and Interpretations”. Ottawa, Ontario: Canadian Institute for Health Information.
- Donavan, J.L., S.J. Frankel and J.D. Eyles. 1993. “Assessing the need for health status measures”. *Journal of Epidemiology and Community Health* 47(2): 158-162.
- Performance Reporting Technical Working Group (PRTWG). 2004. “Considerations for data production for reporting comparable health indicators in November 2004”. (secure.cihi.ca/cihiweb/en/downloads/Considerations_for_Data_Production_November_15_ENG_FINAL.pdf)
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Tremblay, S., S. Dahinten and D. Kohen. 2003. "Factors related to adolescents' self-perceived health". *Health Reports (supplement)* 14: 7-16. Ottawa, Ontario: Statistics Canada. (Catalogue Number: 82-003)

Indicator Name Reference List

- **Self-rated health status**
 - Accountability Document (2003/2004 and 2004/2005)
- **Self-reported health status**
 - Core Indicators for Environmental Scan (2003/2004)
- **Self-rated health status: percentage of population (age 12 years and over) who report their health as very good or excellent**
 - Accountability Document (2005/2006 onwards)
 - Performance Management Accountability Indicators (all versions to date)

Percentage of population (age 18 to 64 years) who are overweight or obese

Section: Health Status and Outcome Indicators

Sub-Section: Not applicable.

Category: Non-Medical Determinants of Health

Type of Measure: Outcome

Status: Active (since 2003/2004)

Definition: The percentage of the population (age 18 to 64 years) who are classified as having a body mass index (BMI) of 25.0 to 29.9 (overweight), or 30.0 or higher (obese).

BMI is based on self-reported height and weight, and calculated for persons age 18 to 64 years. BMI is calculated as weight (in kilograms) divided by height (in metres) squared.

Template Content Last Changed: April 21, 2006

Interpretation

Rationale and Notes for Interpretation

Obesity has been identified as a major risk factor contributing to a number of chronic illnesses such as type II diabetes and heart disease. BMI is the most common method of determining if an individual's weight is in a healthy range, and despite its limitations with respect to certain population groups (e.g. children, pregnant women, athletes) is a widely used standard in the health literature to measure the effects of excess weight as a risk factor for various diseases.

Reducing the risk of obesity decreases the risk of a number of other chronic conditions such as cardiovascular disease, type II diabetes and certain types of cancer. The benefits are due in part to a direct effect of reduced obesity, but also to the indirect effects of changes in the amount and type of fat in the diet, which affects blood lipid levels and other potential risk factors for disease.

Performance Management Accountability Indicators

Both the factors likely to contribute to rising obesity rates, and the role of obesity on the development of chronic conditions are multifactorial. It is likely that several variables interact to confer a risk of developing obesity (e.g. genetic predisposition and environmental conditions). Similarly, obesity is only one of many behaviourally modifiable influences that confer susceptibility to chronic diseases. Causal relationships between obesity and certain conditions (e.g. mental health) are also hard to establish, as it is likely that not only does obesity increase depression but also that underlying mental conditions can increase the likelihood of obesity. This limits the extent to which conclusions can be drawn as to the effects of obesity on certain indicators.

Please note that the low end of the age range changed from 20 years in the Cycle 1.1 survey to 18 years in the Cycle 2.1 survey.

The BMI rate for Saskatchewan was included in the “Saskatchewan Comparable Health Indicators Report 2004” (Saskatchewan Health, 2004). Please see pages 50 to 58 of the report and section 68-HLT of the report’s technical specifications appendix for more information. Technical specifications can also be found in “Considerations for data production for reporting comparable health indicators in November 2004” (Performance Reporting Technical Working Group (PRTWG), 2004).

Please see “Appendix D – Canadian Community Health Survey (CCHS)” for more information on using and interpreting CCHS data.

Targets / Benchmarks

To be determined.

Contributing Factors

- Convincing evidence exists for the correlation of obesity rates with levels of energy expenditure. As such, low levels of physical activity in leisure time (and increased sedentary activities such as TV watching, computer use, etc.) and increased levels of mechanization at home / work impact upon the likelihood of obesity rates rising.
- Genetic effects may play a role in determining body weight in certain people. Separating genetic effects from the role of the environment on body weight remains problematic, however, and the interaction of both is likely to occur through the role of environmental factors on people who are genetically susceptible to increased levels of adiposity.
- Parental modelling and other environmental factors may determine the degree of adiposity in youth who are genetically predisposed to obesity. Probable etiological factors include the role of home and school environments in informing the food choices made by children, and the heavy marketing of fast foods (high in energy and low in micronutrients) that children and adults are exposed to. Breastfeeding has also been shown to have a protective effect against the development of obesity (WHO, 2003).
- Although not as large as behavioural factors, socio-economic status and education are also indicated as having an inverse relationship to obesity. Factors such as income and location that contribute to the availability and accessibility of nutritious food can influence dietary choices.
- Socio-cultural influences that help dictate conceptions of what foods are appropriate to eat influence food choice patterns and, therefore, can also play a role in the development of obesity at the population level. For example, evidence for the protective effect of high fibre foods, and the causative role of energy dense foods, especially those high in fat / sugar and low in micronutrients in disease is accumulating. Socio-cultural influences along with parental modelling and environmental exposure can also contribute towards expectations around portion size. There is some evidence that increasing portion sizes is correlated with the rising rates of obesity observed in Western cultures.
- Local factors may contribute to disparities in the distribution of overweight / obesity rates at the regional level.

Impact on Other Indicators

High rates of obesity contribute to the development of various conditions. As such, increasing levels of obesity may be expected to impact upon other causes of morbidity and mortality:

- Incidence, mortality and survival rates for heart disease and stroke.
- Prevalence of type II diabetes mellitus and associated complications.
- Osteoarthritis, and other joint disorders (hip and knee replacement rates).
- Quality of life (e.g. disability-free life expectancy) is likely to be affected as well as quantity of life.
- Other comorbidities, including mental health conditions such as prevalence of depression and anxiety, may also be affected by obesity rates.
- Self-reported measures of health and well-being are likely to decline as obesity and the health related problems it causes increase.

Potential for Action and Influence

To be determined.

Data Tables

Please see the corresponding section in the document “Performance Management Accountability Indicators: Data Tables”.

Technical Specification

Method of Calculation

Calculation

Estimated number of people age 18 to 64 years, reporting a BMI of 25.0 to 29.9 (overweight) or 30.0 or higher (obese) divided by the total population age 18 to 64 years, expressed as a percentage (with weighting adjusted to reflect non-response).

Numerator

Estimated number of people age 18 to 64 years, reporting a BMI of 25.0 to 29.9 (overweight) or 30.0 or higher (obese).

Denominator

Total population age 18 to 64 years.

Inclusions / Exclusions

Exclusions:

- Individuals less than 18 years of age and older than 64 years of age.
- Survey frame exclusions (persons living on First Nations Reserves and Crown Lands, full-time members of the Canadian Armed Forces, residents of certain remote regions, and children under 12 years of age are not sampled).

Data Source

Source

Canadian Community Health Survey (CCHS) – Saskatchewan Share File

Flow

Please see “Appendix D – Canadian Community Health Survey (CCHS)” for more information.

Availability

The survey is conducted bi-annually, and data is usually available within one year of survey completion. There are currently two years of data available: Cycle 1.1 (2000/2001) and Cycle 2.1 (2003).

Limitations

Data on height and weight are based on self-report survey responses. As a result questions relating to the reliability of these measures are raised. Research suggests that individuals tend to underestimate their weight and overestimate their height.

Furthermore, BMI is not an appropriate measure of obesity in children, pregnant women, or those who are extremely muscular, such as highly trained athletes.

Please see "Appendix D – Canadian Community Health Survey (CCHS)" for more information on limitations.

References

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- Sorenson, T.I. 1995. "Socio-economic aspects of obesity: causes or effects?". *International Journal of Obesity and Related Metabolic Disorders: Journal of the International Association for the Study of Obesity* 19(Supplement 6): S6-S8.
- Yanovski, J.A. and S.Z. Yanovski. 1999. "Recent advances in basic obesity research". *The Journal of the American Medical Association* 282(16): 1504-1506.

Indicator Name Reference List

- **Obesity rates**
 - Accountability Document (2003/2004 and 2004/2005)
- **Body mass index: overweight & obesity rates**
 - Core Indicators for Environmental Scan (2003/2004)
- **Body mass index (BMI): overweight and obesity rates**
 - Performance Management Accountability Indicators (February 16 and 18, 2005 versions)
- **Percentage of population (age 20 to 64 years) who are overweight or obese**
 - Accountability Document (2005/2006)
 - Performance Management Accountability Indicators (March 16 and 31, 2005 versions)

- **Percentage of population (age 18 to 64 years) who are overweight or obese**
 - Accountability Document (2006/2007 onwards)
 - Performance Management Accountability Indicators (May 21, 2005 version onwards)

Percentage of population (age 12 years and over) who report physical activity participation levels of active / moderately active or inactive

Section: Health Status and Outcome Indicators

Sub-Section: Not applicable.

Category: Non-Medical Determinants of Health

Type of Measure: Output

Status: Active (since 2003/2004)

[This indicator did not appear in the 2003/2004 and 2004/2005 Accountability Documents, but was included in 2003/2004 and 2004/2005 RHA Annual Reports, and in previous versions of this document.]

Definition: Percentage of the population age 12 years and over who report a physical activity level of active / moderately active, or a physical activity level of inactive.

Template Content Last Changed: April 21, 2006

Interpretation

Rationale and Notes for Interpretation

Maintaining physical activity is associated with a range of health benefits. Many studies have shown that regular physical activity confers major heart health benefits. Inactivity is a major risk factor for heart disease. Evidence from the National Population Health Survey supports this conclusion, and also shows that physically active individuals are less likely to suffer from mental health problems such as depression. Psychological well-being, with improved cognition, social interaction and integration is also enhanced with physical activity. This is especially important considering the observable trend for participation in physical activity to decrease with age. Increased participation in physical activity has also been associated with a reduced incidence of high-risk behaviours (such as smoking, alcohol, substance abuse, and inadequate dietary practices) in teenagers, and youth in general.

Over and above these significant health benefits for people of all ages, there are considerable economic benefits at the national level associated with participation in physical activity in terms of reduced health care costs and increased productivity.

There are a number of limitations associated with self-reported physical activity information. The most obvious limitation is that since individuals self-assess their levels of physical activity, each person's assessment may be different. In addition, some respondents may over-emphasize their level of physical activity to appear more active than they actually are.

The physical activity rate for Saskatchewan was included in the "Saskatchewan Comparable Health Indicators Report 2004" (Saskatchewan Health, 2004). Please see pages 35 to 42 of the report and section 67-HLT of the report's technical specifications appendix for more information. Technical specifications can also be found in "Considerations for data production for reporting comparable health indicators in November 2004" (Performance Reporting Technical Working Group (PRTWG), 2004).

Performance Management Accountability Indicators

Please see “Appendix D – Canadian Community Health Survey (CCHS)” for more information on using and interpreting CCHS data.

Targets / Benchmarks

To be determined.

Contributing Factors

- **Age:** Levels of physical activity tend to decrease with age due to real or anticipated functional limitations.
- **Urbanization:** Increases in sedentary lifestyles are largely a part of increased levels of modernization including motor vehicle use, labour-saving devices, and inactive leisure pursuits (TV watching, computer use).
- **Environmental infrastructure:** A lack of recreational public places. Insecurity in the streets can contribute to sedentariness at the community level.
- **Income:** Low income populations tend to be more inactive, possibly related to economic ability to access and participate in physical activities.
- **Sex:** From adolescence onwards levels of female participation in physical activity tend to be lower than those of males. Increasing levels of family responsibility faced by women is one reason commonly cited as contributing to this trend. Definitions of physical activity based on total energy expenditure also fail to distinguish differences in types of physical activity participation. The fact that women participate in less intense forms of physical activity may also be partly responsible for the observed difference.
- Local factors may contribute to disparities in the distribution of physical activity participation rates at the regional level.

Impact on Other Indicators

Physical activity participation has the potential to impact upon several indicators. Direct effects of decreased levels of sedentary behaviour include a reduction in body weight. Furthermore, be it directly or indirectly through lowering of body mass index (BMI), physical activity is associated with increased levels of physical and mental well-being. As such, other indicators likely to be affected by changes in physical activity include:

- body weight;
- mortality and morbidity rates related to cardiovascular disease;
- prevalence of depression; and,
- diabetes incidence.

Physical activity also likely bears a U-shape function in relation to osteoarthritis and disorders of the musculoskeletal system (since at very low and very high extremes, physical activity can have a negative impact on joint health).

Potential for Action and Influence

To be determined.

Data Tables

Please see the corresponding section in the document “Performance Management Accountability Indicators: Data Tables”.

Technical Specification

Method of Calculation

Calculation

Estimated number of individuals reporting an active / moderately active level of physical activity, respectively an inactive level of physical activity, divided by the total population age 12 years and over, expressed as a percentage (with weighting adjusted to reflect non-response).

Numerator

Estimated number of individuals reporting combined active (≥ 3.0 kcal/kg/day) and moderately active (1.5 to 2.9 kcal/kg/day) levels of physical activity, respectively an inactive (< 1.5 kcal/kg/day) level of physical activity.

Denominator

Total population age 12 years and over.

Inclusions / Exclusions

Exclusions:

- Survey frame exclusions apply (persons living on First Nations Reserves and Crown Lands, full-time members of the Canadian Armed Forces, residents of certain remote regions, and children under 12 years of age are not sampled).

Data Source

Source

Canadian Community Health Survey (CCHS) – Saskatchewan Share File

Flow

Please see “Appendix D – Canadian Community Health Survey (CCHS)” for more information.

Availability

The survey is conducted bi-annually, and data is usually available within one year of survey completion. There are currently two years of data available: Cycle 1.1 (2000/2001) and Cycle 2.1 (2003).

Limitations

Self-report data are vulnerable to error as individual attempts at impression management, comprehension gaps, and differences in understanding may lead to an overestimation of physically active behaviour.

Please see “Appendix D – Canadian Community Health Survey (CCHS)” for more information on limitations.

References

- Performance Reporting Technical Working Group (PRTWG). 2004. “Considerations for data production for reporting comparable health indicators in November 2004”. (secure.cihi.ca/cihiweb/en/downloads/Considerations_for_Data_Production_November_15_ENG_FINAL.pdf)
- Russell, S.J. and C.L. Craig. 1995. “Physical Activity and Lifestyles in Canada 1981-1995”. Report by the Canadian Fitness and Lifestyle Research Institute. (www.cflri.ca/pdf/e/95palife.pdf)
- Saskatchewan Health. 2004. “Saskatchewan Comparable Health Indicators Report 2004”. (www.health.gov.sk.ca/mc_comparable_hlth_indicators_04.html)
- Shields, M. and S. Tremblay. 2002. “The health of Canada’s communities”. *Health Reports (supplement)* 13: 9-32. Ottawa, Ontario: Statistics Canada. (Catalogue Number: 82-003)

Performance Management Accountability Indicators

Tremblay, M.S. and J.D. Willms. 2003. "Is the Canadian childhood obesity epidemic related to physical inactivity?". *International Journal of Obesity and Related Metabolic Disorders: Journal of the International Association for the Study of Obesity* 27(9): 1100-1105.

Indicator Name Reference List

- **Participation in physical activity**
 - Core Indicators for Environmental Scan (2003/2004)
- **Percentage of population participating in leisure time physical activity**
 - Performance Management Accountability Indicators (February 16 and 18, 2005 versions)
- **Percentage of population (age 12 years and over) who report physical activity participation levels of active / moderately active or inactive**
 - Accountability Document (2005/2006 onwards)
 - Performance Management Accountability Indicators (March 16, 2005 version onwards)

Number of visits to a physician for a mental health reason

Section: Health Status and Outcome Indicators

Sub-Section: Not applicable.

Category: Health Status

Type of Measure: Outcome

Status: Active (since 2005/2006)

[This indicator was proposed during the 2004/2005 indicator development and review process, and hence, does not appear in the 2003/2004 and 2004/2005 Accountability Documents.]

Definition: The number of visits to a physician for a mental health reason for a specified time period.

Template Content Last Changed: April 21, 2006

Interpretation

Rationale and Notes for Interpretation

Mental Health issues are much broader than those captured by inpatient statistics. As such, the number of visits to a physician for a mental health reason should capture more fully the depth of this issue within Saskatchewan.

Targets / Benchmarks

To be determined.

Contributing Factors

- Access to mental health services.
- Social stability and support.

- Spousal and family support.

Impact on Other Indicators

To be determined.

Potential for Action and Influence

To be determined.

Data Tables

Please see the corresponding section in the document “Performance Management Accountability Indicators: Data Tables”.

Technical Specification

Method of Calculation

Calculation

Number of visits to a physician for a mental health reason for a specified time period.

Numerator

Not applicable.

Denominator

Not applicable.

Inclusions / Exclusions

Inclusions:

- Any visit to a general practitioner where a mental health reason was listed as the primary reason for the visit.
- Any visit to a psychiatrist where a mental health reason was listed as the primary reason for the visit.

Exclusions:

- Any visit to a physician where a mental health reason was not listed as the primary reason for the visit.

Data Source

Source

Mental Health Program Review, Community Care Branch (CCB), Saskatchewan Health (based on data from the Physician Claims System, Medical Services Branch (MSB), Saskatchewan Health).

Flow

To be determined.

Availability

Annually. The “Mental Health, Alcohol and Drug Services, Problem Gambling, and Acquired Brain Injury Program Review” is usually produced between June and September of each year.

Limitations

This may still understate the breadth of mental health issues in Saskatchewan. As the visits listed are only those with a primary diagnosis of mental health visit, it would miss those visits where mental health concerns were the underlying diagnosis.

References

Saskatchewan Health (Community Care Branch). September 2005. "Mental Health, Alcohol and Drug Services, Problem Gambling, and Acquired Brain Injury Program Review".

Indicator Name Reference List

- **Number of visits to a physician for a mental health reason**
 - Accountability Document (2005/2006 onwards)
 - Performance Management Accountability Indicators (March 16, 2005 version onwards)

Age-adjusted diabetes prevalence rate per 1,000 population

Section: Health Status and Outcome Indicators

Sub-Section: Not applicable.

Category: Health Status

Type of Measure: Outcome

Status: Active (since 2003/2004)

Definition: Proportion of the population living with diabetes in a specified time period (e.g. fiscal year), expressed as a rate per 1,000 population.

Template Content Last Changed: May 26, 2006

Interpretation

Rationale and Notes for Interpretation

Diabetes is a progressively debilitating disease that is associated with several comorbidities or chronic disease complications, including limb losses through amputation. Thus, diabetes carries high utilization costs as well as quality of life implications.

Diabetes is not a reportable condition and figures are estimates of the true prevalence of the condition.

Rates are comparable at the Regional Health Authority (RHA) level. However, caution should be exercised when comparing rates inter-provincially because national reporting includes only individuals age 20 years and over.

The prevalence rate of diabetes for Saskatchewan was included in the "Saskatchewan Comparable Health Indicators Report 2004" (Saskatchewan Health, 2004). Please see pages 19 to 25 of the report and section 63-HLT of the report's technical specifications appendix for more information. Technical specifications can also be found in "Considerations for data production for reporting comparable health indicators in November 2004" (Performance Reporting Technical Working Group (PRTWG), 2004).

Performance Management Accountability Indicators

Please note that the methodology used to calculate the rate in the “Comparable Health Indicators Report” differs from that described in this template.

Targets / Benchmarks

To be determined.

Contributing Factors

- **Age:** Diabetes incidence and prevalence tend to increase with age.
- **Sex:** The sex-specific diabetes prevalence rates are generally higher in males than in females, especially in type II.
- **Genetics:** Individuals who have diabetic first-degree relatives tend to carry a higher risk of developing diabetes than those without.
- **Nutrition:** High carbohydrate, high fat and low fibre diet could predispose to diabetes.
- **Obesity:** Individuals with long-standing obesity are at a high risk of developing diabetes.
- **Ethnic background:** First Nations and non-Caucasian individuals have a higher risk of type II diabetes than Caucasians. This risk is reversed in type I diabetes.
- **Physical inactivity:** Sedentary lifestyle in combination with other factors is associated with high risk of developing diabetes.
- **Viral infections:** Several viral infections, such as rubella, have a subsequent higher risk of diabetes.
- **Others:** Other minor factors include smoking, alcohol, hypertension, heart disease, gestational diabetes and stress.
- Local factors may contribute to disparities in the distribution of diabetes including the relatively recent availability and introduction of high carbohydrate diet into the First Nations communities. Low levels of physical activity during the long cold winters could precipitate diabetes onset.

Impact on Other Indicators

Diabetes has impact on several outcome measures such as death rates, potential years of life lost, disability-free life expectancy, as well as hospital utilization measures. On the other hand, physical activity participation rates and obesity rates could affect diabetes prevalence levels.

Potential for Action and Influence

To be determined.

Data Tables

Please see the corresponding section in the document “Performance Management Accountability Indicators: Data Tables”.

Technical Specification

Method of Calculation

Calculation

The number of diabetic patients in the registry files divided by the October 1st (mid-fiscal year) population in the registry files, multiplied by 1,000.

Performance Management Accountability Indicators

To allow comparability across regions, the crude rates were age-adjusted (using 1996 Statistics Canada Census populations for Saskatchewan by sex and ten-year age groups).

Numerator

Number of individuals with diabetes as detected in linked, administrative databases (Person Registry System (PRS), and hospitalization, prescription drug and physician services databases).

An individual with diabetes is so defined if there is record of:

- one diabetes hospitalization in one fiscal year; or,
- one diabetes-related drug prescription in one fiscal year; or,
- two physician visits for diabetes in two contiguous fiscal years.

Denominator

October 1st (mid-fiscal year) population under health insurance coverage in the registry files.

Inclusions / Exclusions

Exclusions:

- Persons whose health insurance coverage is provided by the Federal government. This includes members of the Royal Canadian Mounted Police, members of the Canadian Forces and inmates of federal penitentiaries (accounts for less than 1% of the total Saskatchewan population).
- All individuals with a diabetes diagnosis occurring 90 days prior, or 120 days after, an obstetric event are excluded.

Data Source

Source

The source for the numerator is extracts from Saskatchewan Health's year-end hospital files, physician claims files and prescription drug files, linked to Saskatchewan Health's Person Registry System (PRS).

The source for the denominator is the PRS (not Saskatchewan Health's Covered Population).

Flow

The PRS, and extracts from the physician services, prescription drug and hospitalization databases are linked and analysed. Aggregate results of the analysis are saved in Population Health Branch, Saskatchewan Health.

Availability

Annually. Data is available twelve to fifteen months after the fiscal year.

Limitations

The data included are based on Saskatchewan Health's administrative databases. People who had no hospitalizations for diabetes, no diabetes-related drug prescriptions, and less than two physician visits for diabetes within any two-year period from 1995/1996 onwards were not included in this analysis. Given the relatively long subject inclusion period, we expect that the number of diagnosed diabetic patients not identified in this study is minimal. Individuals with undiagnosed diabetes cannot be identified from the administrative databases and are excluded from the study.

Owing to the structure of the databases, we are unable to differentiate between type I or type II diabetes. Type II constitutes 90 to 95% of all diabetes cases.

It is not possible to compare rates of diabetes among Aboriginals versus non-Aboriginals because only First Nations individuals can be identified in the source files. Non-treaty Indians and Métis people are included in the general population figures. In addition, some First Nations individuals may not be identified as such in the Saskatchewan Health registry. Also, First Nations individuals with diabetes were identified from the hospital separation and physician services databases only. Their prescription drug

Performance Management Accountability Indicators

coverage falls under the Federal government and is not recorded by Saskatchewan Health. Therefore, both the number of diabetic patients and the number of people in the First Nations population may be underestimated.

There may be incomplete capture of diabetic patients in Northern Saskatchewan, because the physician services data include services provided by only some of the salaried physicians working in the north. This may contribute to the underestimation of the incidence and prevalence of diabetes among northern residents.

Other limitations relate to the availability and specificity of physician services data. There is the potential for under ascertainment of diabetes based on physician services information because only one diagnosis is reported per visit, regardless of the number of conditions affecting the patient. Thus, some diagnosed diabetics with multiple conditions may not have a diagnosis of diabetes recorded in the physician services database. Because four data sources (PRS, hospital, prescription drug, and physician services) and a relatively long study period were used for subject identification, the degree of underestimation is expected to be small.

Lastly, although most limitations relate to the under ascertainment of diabetic patients, there is also the potential that some non-diabetics were misclassified as diabetic. Such misclassification may result from records in which clinical investigations to rule out diabetes were reported using the diabetes diagnostic code. To minimize such misclassification, subjects were required to have at least two physician visits within a two-year period if they did not have any diabetes-related hospitalizations or prescriptions during the study period.

References

- Performance Reporting Technical Working Group (PRTWG). 2004. "Considerations for data production for reporting comparable health indicators in November 2004". (secure.cihi.ca/cihiweb/en/downloads/Considerations_for_Data_Production_November_15_ENG_FINAL.pdf)
- Saskatchewan Health. 2004. "Saskatchewan Comparable Health Indicators Report 2004". (www.health.gov.sk.ca/mc_comparable_hlth_indicators_04.html)

Indicator Name Reference List

- **Prevalence rate and complication rate for diabetes**
 - Accountability Document (2003/2004 and 2004/2005)
- **Diabetes prevalence rate**
 - Core Indicators for Environmental Scan (2003/2004)
- **Prevalence rates for diabetes**
 - Performance Management Accountability Indicators (February 16 and 18, 2005 versions)
- **Age-adjusted diabetes prevalence rate per 1,000 population**
 - Accountability Document (2005/2006 onwards)
 - Performance Management Accountability Indicators (March 16, 2005 version onwards)

Injury hospitalization rate per 1,000 population (age 0 to 19 years)

Section:	Health Status and Outcome Indicators
Sub-Section:	Not applicable.
Category:	Health Status
Type of Measure:	Outcome
Status:	Active (since 2003/2004)
Definition:	The number of hospital injury separations for those age 0 to 19 years, expressed as a rate per 1,000 population. External cause of injury codes (E-codes) are used to define and count the hospital discharges.

Template Content Last Changed: May 26, 2006

Interpretation

Rationale and Notes for Interpretation

Injury is the leading cause of childhood death in Canada. Injury is a leading cause of hospitalizations among Saskatchewan children, and in 1996 Saskatchewan had the highest provincial rate of hospitalizations due to injury for children and youth age 0 to 19 years (Canadian Institute of Child Health, 2000). Population public health strategies have demonstrated that injury prevention is possible, if it is focused on the risk factors involved. For example, targeting rural areas for increased awareness regarding farm injury.

Injuries are defined using external cause of injury codes (E-codes), a supplementary classification of the International Statistical Classification of Diseases, Injuries, and Causes of Death, Ninth Revision (ICD-9). E-codes permit the classification of environmental events, circumstances and conditions as the cause of injury, poisoning or other adverse effects. The International Statistical Classification of Diseases and Related Health Problems – Tenth Revision, Canada (ICD-10-CA) incorporates e-codes into the overall classification as the code block V01 to Y98.

In the definition of child injury, three E-code classes are excluded. These are injuries due to medical misadventure: E-code classes 10 and 11 (ICD-9 codes E870 to E876, and E878 to E879), and injuries due to adverse effects due to therapeutic agents: E-code class 18 (ICD-9 codes E930 to E949). The equivalent ICD-10-CA codes are Y60 to Y69, Y71 to Y84 and Y88.1 for medical misadventures, and Y40 to Y59, Y70 and Y88.0 for adverse effects due to therapeutic agents. In the literature, these are generally excluded from child and youth injury analyses as they are very different both in their nature and in the types of appropriate preventative strategies.

The information presented in the “Limitations” section under “Technical Specifications” below should also be kept in mind when interpreting child and youth injury hospitalizations.

Targets / Benchmarks

To be determined.

Contributing Factors

- **Age:** Hospital injury rates differ between child and youth age groups. Youth age 15 to 19 years have the highest hospitalization rates due to injury (Saskatchewan Institute on Prevention of Handicaps, 2002).

Performance Management Accountability Indicators

- **Geography:** Children and youth living in Northern Saskatchewan have higher rates of injury compared to the rest of Saskatchewan (Saskatchewan Institute on Prevention of Handicaps, 2002).
- **Sex:** Child and youth males have higher rates of injury in Saskatchewan (Saskatchewan Institute on Prevention of Handicaps, 2002).
- Local factors contribute to disparities in the distribution of child and youth injury rates at the regional level.

Impact on Other Indicators

Injury has the potential to impact on other indicators. Injury to children and youth can result in life-long disabilities, or even death. This has the potential to directly contribute to many health status indicators including potential years of life lost, mortality rates, disability-free life expectancy, and life expectancy. Indirectly, it may also contribute to other indicators, such as depression rates or obesity rates.

Potential for Action and Influence

To be determined.

Data Tables

Please see the corresponding section in the document "Performance Management Accountability Indicators: Data Tables".

Technical Specification

Method of Calculation

Calculation

The number of acute inpatient and day surgery separations for children age 0 to 19 years due to an injury divided by the total population age 0 to 19 years, multiplied by 1,000.

Numerator

The number of acute inpatient and day surgery separations for children age 0 to 19 years due to an injury (as defined by external cause of injury codes).

Denominator

Total population age 0 to 19 years as at October 1st (i.e. mid-fiscal year population counts).

Inclusions / Exclusions

Inclusions:

- Saskatchewan residents hospitalized in Saskatchewan or out-of-province facilities.
- All acute inpatient and day surgery cases where an external cause of injury is indicated on the hospital record (except those listed in "Exclusions" below).
- Individuals age 19 years and under as at March 31st (the end of the fiscal year). Age is determined from the Person Registry System (PRS), and is not the value recorded in the hospital file (the age at the time of hospitalization). Therefore, anyone who was 19 at the time of hospitalization but turned 20 on or before March 31st was excluded.

Exclusions:

- Injuries that did not result in a hospital admission. These include circumstances where the injured person did not seek hospital care, was treated in emergency and released, or was dead on arrival.

Performance Management Accountability Indicators

- Injuries due to medical misadventure: E-code classes 10 and 11 (ICD-9 codes E870 to E876, and E878 to E879; ICD-10-CA codes Y60 to Y69, Y71 to Y84 and Y88.1), and injuries due to adverse effects due to therapeutic agents: E-code class 18 (ICD-9 codes E930 to E949; ICD-10-CA codes Y40 to Y59, Y70 and Y88.0). These are generally excluded from injury analyses as they are very different both in their nature and in the types of appropriate preventative strategies.
- Persons whose health insurance coverage is provided by the Federal government. This includes members of the Royal Canadian Mounted Police, members of the Canadian Forces and inmates of federal penitentiaries (accounts for less than 1% of the total Saskatchewan population).

Data Source

Source

The source for the numerator is an extract from Saskatchewan Health's year-end hospital file linked to Saskatchewan Health's Person Registry System (PRS). The hospital file is mainly data submitted to the Canadian Institute for Health Information's (CIHI's) Discharge Abstract Database (including about 67% of the records for Saskatchewan residents hospitalized in out of province facilities), but also includes merged information from Saskatchewan Health's reciprocal billing system to fill in the rest of the out of province hospitalizations.

The source for the denominator is the PRS (not Saskatchewan Health's Covered Population).

Flow

Please see "Appendix E – Detailed Data Flow: Acute Care Hospital Data" for details on the data flow for CIHI's DAD and Saskatchewan Health's year-end hospital file.

Availability

Annually. CIHI's final version of the data is available 5 to 6 months after the end of the fiscal year. Saskatchewan Health's final version of this data is available 11 to 12 months after the end of the fiscal year, and the extract is provided to Population Health Branch, Saskatchewan Health soon after.

The populations for the denominator are generated from the PRS as at October 1st.

Limitations

A comprehensive picture of injuries would include injury hospitalizations, injuries treated in emergency rooms, outpatient clinics, physician offices or at home, and injury deaths occurring before hospitalization. However, injuries that do not result in hospitalization are excluded from this indicator. This most likely results in a significant underestimation of the problem. For example, injuries treated at home are estimated to equal twice that of those treated in Emergency Departments (Guyer and Gallagher, 1985).

Only injury hospitalizations are used because of gaps and limitations in the data currently available. Saskatchewan Health does not collect information on hospital emergency room or outpatient services (although individual Regional Health Authorities or facilities may be collecting this information). Some information on emergency room services provided by physicians may be available from physician billing data maintained by Saskatchewan Health, if the physician submits records to the Medical Services Branch, but those data would be further limited in that they do not record ICD-9 E-codes.

It is important to keep in mind that total hospitalizations are counted, not the number of injuries. It is possible for one injury to result in more than one hospitalization, or for an individual to be hospitalized for multiple injuries. Also, the injury may or may not have been the cause of hospitalization.

First Nations individuals are not re-allocated from the "reserve" residence code recorded in the PRS to the residence code of their actual place of residence (based on the postal code recorded in the hospital file).

References

- Brownell, M., P. Martens A. Kozyrskyj, P. Fergusson, J. Lorfald, T. Mayer, S. Derksen and D. Friesen. 2001. "Assessing the health of children in Manitoba: a population-based study". Winnipeg, Manitoba: Manitoba Centre for Health Policy.
- Canadian Institute of Child Health (CICH). 2000. The Health of Canada's Children, Third Ed. Ottawa, Ontario: CICH.
- Guyer, B. and S.S. Gallagher. 1985. "An approach to the epidemiology of childhood injuries". *Pediatric Clinics of North America*. 32(1): 5-16.
- Hader, J.M. and P. Seliske. 1993. "Injuries in Saskatchewan". Health Status Research Unit, Department of Community Health and Epidemiology, College of Medicine, University of Saskatchewan.
- Manitoba Health and IM-PACT. 1998. "Manitoba Injury Data Resource, Injury Deaths and Hospitalizations Province-wide and by Region: 1996 and Trends". Epidemiology Unit, Public Health Branch, Manitoba Health.
- McKenzie, S.G. 1994. "Childhood injury: Deaths and hospitalizations in Canada". Report by the Injury Section, Diseases of Infants and Children Division, Bureau of Chronic Disease Epidemiology, LCDC, Health Canada. (www.hc-sc.gc.ca/pphb-dgspsp/publicat/chirpp-schirpt/01mar94/iss1c_e.html)
- Saskatchewan Institute on Prevention of Handicaps. 1996. "Child Injury in Saskatchewan: Injury Hospitalizations and Deaths 1989-1994". Saskatchewan Institute on Prevention of Handicaps and University Extension Press, University of Saskatchewan.
- Saskatchewan Institute on Prevention of Handicaps. 2002. "Child and Youth Injury in Saskatchewan, 1995-1999". Saskatchewan Institute on Prevention of Handicaps. (www.preventioninstitute.sk.ca/)

Indicator Name Reference List

- **Child injury hospitalization rates**
 - Accountability Document (2003/2004 and 2004/2005)
- **Child and youth injury hospitalization rates**
 - Core Indicators for Environmental Scan (2003/2004)
 - Performance Management Accountability Indicators (February 16 and 18, 2005 versions)
- **Injury hospitalization rate per 1,000 population (age 0 to 19 years)**
 - Accountability Document (2005/2006 onwards)
 - Performance Management Accountability Indicators (March 16, 2005 version onwards)

Hospitalization rate due to falls per 1,000 population (age 65 years and over)

Section: Health Status and Outcome Indicators

Sub-Section: Not applicable.

Category: Health Status

Type of Measure: Outcome

Status: Active (since 2004/2005)

Performance Management Accountability Indicators

Definition: The number of hospitalizations due to a fall injury for Saskatchewan residents age 65 years and older, expressed as a rate per 1,000 population.

Template Content Last Changed: May 26, 2006

Interpretation

Rationale and Notes for Interpretation

Injuries due to falls are a serious health issue for seniors, often resulting in long-term disability, loss of independence and even death. Surveillance of fall injury among Saskatchewan's seniors is as important now as ever before, as the province's demographics continue to shift to the older populations. Additionally, population public health strategies have demonstrated that injury prevention is possible, if focused on the risk factors involved. For example, targeting overmedication as a risk factor for falls among seniors.

Injuries are defined using external cause of injury codes (E-codes), a supplementary classification of the International Statistical Classification of Diseases, Injuries, and Causes of Death, Ninth Revision (ICD-9). E-codes permit the classification of environmental events, circumstances and conditions as the cause of injury, poisoning or other adverse effects. The International Statistical Classification of Diseases and Related Health Problems – Tenth Revision, Canada (ICD-10-CA) incorporates e-codes into the overall classification as the code block V01 to Y98. Falls are defined as ICD-9 codes E880 to E888 (the equivalent ICD-10-CA codes are W00 to W19).

The information presented in the "Limitations" section under "Technical Specifications" below should also be kept in mind when interpreting hospitalizations due to falls among seniors.

Targets / Benchmarks

To be determined.

Contributing Factors

- **Location:** Most falls occur within the home (Saskatchewan Health, 2002).
- **Cause:** The most common cause of falls in seniors in Saskatchewan was "falling on the same level from slipping, tripping, or stumbling" (Saskatchewan Health, 2002).
- **Sex:** Twice as many females are hospitalized due to falls, compared to males (Saskatchewan Health, 2002).
- Local factors may contribute to disparities in the distribution of seniors and fall hospitalization rates at the regional level.

Impact on Other Indicators

Injury has the potential to impact on other indicators. Injury to seniors can result in life-long disabilities, loss of independence or even death. This has the potential to directly contribute to many health status indicators, including potential years of life lost, mortality rates, disability-free life expectancy, and life expectancy. Indirectly, it may also contribute to other indicators, such as depression or obesity rates.

Potential for Action and Influence

To be determined.

Data Tables

Please see the corresponding section in the document “Performance Management Accountability Indicators: Data Tables”.

Technical Specification

Method of Calculation

Calculation

Number of acute inpatient and day surgery separations for individuals age 65 years and over due to a fall (ICD-9 codes E880 to E888; ICD-10-CA codes W00 to W19) divided by the total population age 65 years and over, multiplied by 1,000.

Numerator

Number of acute inpatient and day surgery separations for individuals age 65 years and over due to a fall (ICD-9 codes E880 to E888; ICD-10-CA codes W00 to W19).

Denominator

Total population age 65 years and over as at October 1st (i.e. mid-fiscal year population counts).

Inclusions / Exclusions

Inclusions:

- Saskatchewan residents hospitalized in Saskatchewan or out-of-province facilities.
- All acute inpatient and day surgery cases where an injury caused by a fall (ICD-9 codes E880 to E888; ICD-10-CA codes W00 to W19) is indicated on the hospital record.
- Individuals age 65 years and over as at March 31st (the end of the fiscal year). Age is determined from the Person Registry System (PRS), and is not the value recorded in the hospital file (the age at the time of hospitalization). Therefore, anyone who was 64 at the time of hospitalization but turned 65 on or before March 31st was also included.

Exclusions:

- Fall injuries that did not result in a hospital admission. These include circumstances where the injured person did not seek hospital care, was treated in emergency and released, or was dead on arrival.
- Persons whose health insurance coverage is provided by the Federal government. This includes members of the Royal Canadian Mounted Police, members of the Canadian Forces and inmates of federal penitentiaries (accounts for less than 1% of the total Saskatchewan population).

Data Source

Source

The source for the numerator is an extract from Saskatchewan Health’s year-end hospital file linked to Saskatchewan Health’s Person Registry System (PRS). The hospital file is mainly data submitted to the Canadian Institute for Health Information’s (CIHI’s) Discharge Abstract Database (including about 67% of the records for Saskatchewan residents hospitalized in out of province facilities), but also includes merged information from Saskatchewan Health’s reciprocal billing system to fill in the rest of the out of province hospitalizations.

The source for the denominator is the PRS (not Saskatchewan Health’s Covered Population).

Flow

Please see “Appendix E – Detailed Data Flow: Acute Care Hospital Data” for details on the data flow for CIHI’s DAD and Saskatchewan Health’s year-end hospital file.

Availability

Annually. CIHI's final version of the data is available 5 to 6 months after the end of the fiscal year. Saskatchewan Health's final version of this data is available 11 to 12 months after the end of the fiscal year, and the extract is provided to Population Health Branch, Saskatchewan Health soon after.

The populations for the denominator are generated from the PRS as at October 1st.

Limitations

A comprehensive picture of injuries would include injury hospitalizations, injuries treated in emergency rooms, outpatient clinics, physician offices or at home, and injury deaths occurring before hospitalization. However, injuries that do not result in hospitalization are excluded from this indicator. This most likely results in a significant underestimation of the problem. For example, injuries treated at home are estimated to equal twice that of those treated in Emergency Departments (Guyer and Gallagher, 1985).

Only injury hospitalizations are used because of gaps and limitations in the data currently available. Saskatchewan Health does not collect information on hospital emergency room or outpatient services (although individual Regional Health Authorities or facilities may be collecting this information). Some information on emergency room services provided by physicians may be available from physician billing data maintained by Saskatchewan Health, if the physician submits records to the Medical Services Branch, but those data would be further limited in that they do not record ICD-9 E-codes.

It is important to keep in mind that total hospitalizations are counted, not the number of injuries. It is possible for one injury to result in more than one hospitalization, or for an individual to be hospitalized for multiple injuries. Also, the injury may or may not have been the cause of hospitalization.

First Nations individuals are not re-allocated from the "reserve" residence code recorded in the PRS to the residence code of their actual place of residence (based on the postal code recorded in the hospital file).

References

- Guyer, B. and S.S. Gallagher. 1985. "An approach to the epidemiology of childhood injuries". *Pediatric Clinics of North America*. 32(1): 5-16.
- Manitoba Health and IM-PACT. 1998. "Manitoba Injury Data Resource, Injury Deaths and Hospitalizations Province-wide and by Region: 1996 and Trends". Epidemiology Unit, Public Health Branch, Manitoba Health.
- Moyer, A, F. Aminzadeh and N. Edwards. 1998. "Falls in Later Life". Community Health Research Unit, University of Ottawa.
- Saskatchewan Health. 2002. "Fall Injuries Among Saskatchewan Seniors, 1992/93 to 1997/98: Implications for Prevention". Population Health Branch, Saskatchewan Health.

Indicator Name Reference List

- **Rate of hospitalizations due to falls among seniors**
 - Accountability Document (2003/2004 and 2004/2005)
- **Hospitalization rates due to falls (age 65 years and over)**
 - Performance Management Accountability Indicators (February 16 and 18, 2005 versions)
- **Hospitalization rate due to falls per 1,000 population (age 65 years and over)**
 - Accountability Document (2005/2006 onwards)
 - Performance Management Accountability Indicators (March 16, 2005 version onwards)

APPENDIX A – INDICATORS FOR FUTURE USE

ORGANIZATIONAL EFFECTIVENESS INDICATORS: QUALITY

Patient satisfaction

Section:	Organizational Effectiveness Indicators
Sub-Section:	Quality
Category:	Health System Performance
Type of Measure:	Quality
Status:	Priority (2006/2007)
Definition:	To be determined.
Template Content Last Changed:	Template yet to be developed.

Interpretation

Rationale and Notes for Interpretation

Patient satisfaction rates for Saskatchewan were included in the “Saskatchewan Comparable Health Indicators Report 2004” (Saskatchewan Health, 2004):

- Patient satisfaction with overall health care services (5-PC);
- Patient satisfaction with community-based care (7-PC);
- Patient satisfaction with telephone health line or tele-health services (9-PC);
- Patient satisfaction with hospital care (28-OI); and,
- Patient satisfaction with physician care (34-HR).

Please see pages 126 to 155 of the report and sections 5-PC, 7-PC, 9-PC, 28-OI and 34-HR of the report’s technical specifications appendix for more information. Technical specifications can also be found in “Considerations for data production for reporting comparable health indicators in November 2004” (Performance Reporting Technical Working Group (PRTWG), 2004).

References

- Performance Reporting Technical Working Group (PRTWG). 2004. “Considerations for data production for reporting comparable health indicators in November 2004”. (secure.cihi.ca/cihiweb/en/downloads/Considerations_for_Data_Production_November_15_ENG_FINAL.pdf)
- Saskatchewan Health. 2004. “Saskatchewan Comparable Health Indicators Report 2004”. (www.health.gov.sk.ca/mc_comparable_hlth_indicators_04.html)

Indicator Name Reference List

- **Patient satisfaction**
 - Accountability Document (2003/2004 onwards)
 - Performance Management Accountability Indicators (all versions to date)

“Patient safety indicator”

Section: Organizational Effectiveness Indicators

Sub-Section: Quality

Category: Health System Performance

Type of Measure: Quality

Status: Priority (2006/2007)

Quarterly Performance Management Report (“Dashboard”) measure (starting 2006/2007)

Definition: To be determined.

Template Content Last Changed: Template yet to be developed.

Indicator Name Reference List

- **“Patient safety indicator”**
 - Accountability Document (2006/2007 onwards)
 - Performance Management Accountability Indicators (April 21, 2006 version onwards)
 - Performance Management Dashboard (2006/2007 onwards)

ORGANIZATIONAL EFFECTIVENESS INDICATORS: HEALTH HUMAN RESOURCES

The number of positions sitting vacant for periods longer than six months

Section: Organizational Effectiveness Indicators

Sub-Section: Health Human Resources

Category: Organizational Effectiveness

Type of Measure: Efficiency

Status: Priority (2006/2007)

Performance Management Accountability Indicators

Definition: To be determined.

Template Content Last Changed: Template yet to be developed.

Indicator Name Reference List

- **Percentage of long term vacancies by key occupational groups**
 - Performance Management Accountability Indicators (February 16 and 18, 2005 versions)
- **Long-term vacancies as a percentage of all vacancies by occupational group**
 - Accountability Document (2005/2006)
 - Performance Management Accountability Indicators (March 16, March 31, and May 21, 2005 versions)
- **The number of positions sitting vacant for periods longer than six months**
 - Accountability Document (2006/2007 onwards)
 - Performance Management Accountability Indicators (April 21, 2006 version onwards)

ORGANIZATIONAL EFFECTIVENESS INDICATORS: CAPITAL

Annual equipment maintenance costs as a percentage of annual equipment replacement costs

Section: Organizational Effectiveness Indicators

Sub-Section: Capital

Category: Organizational Effectiveness

Type of Measure: Financial

Status: Long-term (beyond 2006/2007)

Definition: To be determined.

Template Content Last Changed: Template yet to be developed.

Indicator Name Reference List

- **Annual equipment maintenance costs as a percentage of annual equipment replacement costs**
 - Accountability Document (2003/2004 onwards)
 - Performance Management Accountability Indicators (all versions to date)

PROGRAM-SPECIFIC INDICATORS: PROVINCE-WIDE SERVICES

Volume and hours of service for specialized medical imaging services

Section: Program-Specific Indicators

Sub-Section: Province-Wide Services

Category: Health System Performance

Type of Measure: Output

Status: Priority (2006/2007)

Definition: To be determined.

Template Content Last Changed: Template yet to be developed.

Indicator Name Reference List

- **Volume and hours of service for specialized medical imaging services**
 - Accountability Document (2003/2004 onwards)
 - Performance Management Accountability Indicators (all versions to date)

Number of patients as a percentage of agreed on target for specialized medical imaging services: magnetic resonance imaging (MRI) scans

Section: Program-Specific Indicators

Sub-Section: Province-Wide Services

Category: Health System Performance

Type of Measure: Efficiency

Status: Priority (2006/2007)

Quarterly Performance Management Report (“Dashboard”) measure (starting 2006/2007)

Definition: To be determined.

Template Content Last Changed: Template yet to be developed.

Indicator Name Reference List

- **Number of patients as a percentage of agreed on target for specialized medical imaging services: magnetic resonance imaging (MRI) scans**
 - Accountability Document (2006/2007 onwards)
 - Performance Management Accountability Indicators (April 21, 2006 version onwards)
 - Performance Management Dashboard (2006/2007 onwards)

Number of patients as a percentage of agreed on target for specialized medical imaging services: computed tomography (CT) scans

Section: Program-Specific Indicators

Sub-Section: Province-Wide Services

Category: Health System Performance

Type of Measure: Efficiency

Status: Priority (2006/2007)
Quarterly Performance Management Report (“Dashboard”) measure (starting 2006/2007)

Definition: To be determined.

Template Content Last Changed: Template yet to be developed.

Indicator Name Reference List

- **Number of patients as a percentage of agreed on target for specialized medical imaging services: computed tomography (CT) scans**
 - Accountability Document (2006/2007 onwards)
 - Performance Management Accountability Indicators (April 21, 2006 version onwards)
 - Performance Management Dashboard (2006/2007 onwards)

PROGRAM-SPECIFIC INDICATORS: ACUTE CARE

Cumulative number of surgical cases performed as a percentage of target and variance from target

Section:	Program-Specific Indicators
Sub-Section:	Acute Care
Category:	Health System Performance / Community and Health System Characteristics
Type of Measure:	Output / Efficiency
Status:	Priority (2006/2007) Quarterly Performance Management Report ("Dashboard") measure (starting 2006/2007)
Definition:	The number of surgeries reported to the Saskatchewan Surgical Care Network (SSCN) Surgical Patient Registry by region of service expressed as a percentage of the agreed upon target and the absolute difference from the target.

Template Content Last Changed: May 26, 2006

Interpretation

Rationale and Notes for Interpretation

Each region has a target for the number of surgeries to be performed over the course of the fiscal year. This indicator shows whether this target was met or not.

Increasing the number of procedures performed in the day surgery setting frees up inpatient beds for other procedures that require a longer recovery time.

Knowing what is going on in the environment (i.e. the context) is also important in interpreting the results. For example, more day surgery may have been performed due to job action, shortage of inpatient beds, in order to meet certain targets, or because the region may have a larger proportion of cases that can be handled in the day surgery setting.

Targets / Benchmarks

Saskatchewan Health has agreements with the Regional Health Authorities (RHAs) regarding the volume of surgeries that they will provide each year.

Targets for the quarterly Performance Management Reports (quarterly "dashboards") were still to be determined as of writing. One option is using 25% (quarter 1), 50% (quarter 2), 75% (quarter 3) and 100% (quarter 4) of the annual target, respectively. These may not be accurate targets, because actual quarterly volumes may fluctuate as a result of staff vacation, equipment maintenance, or other reasons.

Contributing Factors

To be determined.

Impact on Other Indicators

To be determined.

Potential for Action and Influence

The goal of the Saskatchewan Surgical Care Network is to increase the volumes of medically necessary procedures where patients are waiting excessively long times for surgery, in addition to managing wait lists in a more efficient manner in order to reduce the maximum wait time.

The following actions may help to achieve the target number of surgeries.

- Investigate the possibility of moving inpatient cases with a short length of stay to the day surgery setting. This would help to free up inpatient beds for procedures that require an inpatient recovery time.
- Work towards smoothing the number of elective inpatient surgeries performed by each specialty on Monday to Friday. This helps to increase the likelihood of an appropriate bed being available post surgery. Patients that are located off service (e.g. a surgical patient in a medical bed) generally have a longer recovery time. This also would help to reduce bed shortages during the week by smoothing out the peaks in demand for beds. Resources currently devoted to finding beds for patients could be used for other tasks. Minimizing the number of times that a patient has to be moved can help to shorten their recovery time.
- Examine historical data to predict future demand for service. Take measures to smooth and predict elective/scheduled surgeries as these are the cases that we can control.
- Work towards improving patient safety. For example, steps taken to minimize post operative infections, medication errors, and prevention of falls can help to reduce the length of stay in hospital freeing up beds for other patients.
- Use multidisciplinary rounds to coordinate the care of patients, review patient status, schedule tests and procedures, clarify goals, identify safety risks, and create a plan for the day. This helps to ensure better clinical outcomes, timely discharges and patient and staff satisfaction.
- Work with community health services such as long-term care facilities and home care to ensure timely and smooth discharges from the acute care setting and to avoid readmissions to hospital.
- Look for methods of optimising patient flow on the day of surgery and reducing the number of cases that are postponed. This may allow for a few more cases to be done in the course of the day. Some suggestions include:
 - Contact the patient 2 to 4 days before surgery to give instructions, answer questions and follow up on any missing test results or history if necessary.
 - Have the patient call at a specific time before day of surgery for arrival time and final instructions. This is easier than trying to get a hold of the patient.
 - Have the patient register prior to the day of surgery so that they can proceed directly to the surgical preparation area.
 - Have agreed upon tools and protocols to ensure informative, timely and complete pre-operative tests. Make it clear who should receive test results. Make sure that pertinent information is transferred to all appropriate people. Review test results well in advance of the day of surgery.
 - Avoid surprises on the day of surgery by having case carts, supply and equipment needs determined at least a day in advance. Keep preference cards accurate, up to date and available.
 - Have the OR and anaesthesia staff work at the same time to set up the room.
 - Have a start time identified and agree upon its definition (e.g. incision time). Synchronize all pre-operative activity to this start time.
 - Confirm and communicate information. Never make assumptions.
- Utilize the advice and resources of the operations research team at the Health Quality Council to help improve processes and unlock the value in your data.

Data Tables

Not applicable until 2006/2007.

Technical Specification

Method of Calculation – Percentage of Target

Calculation

The total number of surgeries performed year-to-date divided by the year-to-date portion of the agreed upon annual target for the number of surgeries to be performed, expressed as a percentage.

Numerator

Total number of surgeries performed year-to-date.

Denominator

The year-to-date portion of the agreed upon annual target for the number of surgeries to be performed.

Inclusions / Exclusions

Inclusions:

- Surgeries performed on out-of-province residents in Saskatchewan facilities.
- Emergency surgeries as well as wait listed cases.
- All surgeries performed and recorded in the Saskatchewan Surgical Care Network (SSCN) Surgical Patient Registry, with the exception of day surgery cystoscopies performed under a local anaesthetic in St. Paul's Hospital (Saskatoon).
- The surgeries using funding targeted toward long waiting patients (the targets include these cases).
- The following facilities have reported surgery performed data to the Surgical Patient Registry in 2005/2006:
 - **Sun Country:** St. Joseph's Hospital (Estevan), Weyburn General Hospital
 - **Five Hills:** Moose Jaw Union Hospital
 - **Cypress:** Cypress Regional Hospital (Swift Current)
 - **Regina Qu'Appelle:** Regina General Hospital, Pasqua Hospital (Regina)
 - **Sunrise:** St. Peter's Hospital (Melville), Yorkton Regional Health Centre
 - **Saskatoon:** Saskatoon City Hospital, St. Paul's Hospital (Saskatoon), Royal University Hospital (Saskatoon)
 - **Heartland:** Kindersley Hospital, Rosetown and District Health Centre
 - **Kelsey Trail:** Melfort Hospital, Nipawin Hospital
 - **Prince Albert Parkland:** Big River Health Centre, Victoria Hospital (Prince Albert), Spiritwood and District Health Complex
 - **Prairie North:** Lloydminster Hospital, Northwest Health Facility (Meadow Lake), Battlefords Union Hospital.

Exclusions:

- Surgeries performed on Saskatchewan residents in out-of-province facilities.
- Surgeries performed outside of an operating room setting (e.g. in ambulatory care).
- For 2004/2005, surgeries performed in Humboldt, Heartland, Sun Country, Kelsey Trail and the northern health regions are not included in the Surgical Patient Registry.
- For 2005/2006, surgeries performed in Humboldt and the northern health regions are not included in the Surgical Patient Registry.

- Day surgery cystoscopies performed under a local anaesthetic in St. Paul's Hospital (Saskatoon).

Method of Calculation – Variance from Target

Calculation

The year-to-date portion of the agreed upon annual target for the number of surgeries to be performed minus the total number of surgeries performed year-to-date.

Numerator

Not applicable.

Denominator

Not applicable.

Inclusions / Exclusions

Same as those in “Method of Calculation – Percentage of Target” above.

Data Source

Source

Saskatchewan Surgical Care Network (SSCN) Surgical Patient Registry.

Flow

The SSCN Surgical Patient Registry is a web based application that tracks the wait times and priority level for each surgery performed in the province. Data from each region are entered into the system and stored in a central database maintained by the Health Information Solutions Centre, Saskatchewan Health. The smaller regions key the data directly into the database through a web based front end. Regina Qu'Appelle and Saskatoon upload the data into the registry from their surgery booking systems. For analysis purposes, it is best to wait about a month to allow for the majority of booking or surgery performed records to be entered. Analysts at Saskatchewan Health have access to all of the data and analysts in the regions have access to their own data.

Availability

Ongoing. The full fiscal year of data is available about one month after the end of the fiscal year.

Surgery performed data is generally available one month following the date of surgery.

Limitations

Volumes of surgeries do not tell the complete picture. Different types of surgery take different amounts of time to complete and require different levels of resources. The complexity of any particular surgical case (e.g. patient age, comorbid conditions, etc.) and the context (i.e. what else is happening) also have an effect on time and other resources.

Reports are run from a copy of the live database (rather than a final year end file) so numbers are subject to slight changes as records are added and corrected.

References

- Glynn, P.A. 2002. “Creating a surgical wait list management strategy for Saskatchewan”. *Hospital Quarterly* 5(3): 42-44. (www.longwoods.com/opinions/HQ53PGlynn.pdf)
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Saskatchewan Surgical Care Network (SSCN) website. (www.sasksurgery.ca)

Western Canada Wait List Project website. (www.wcwl.org)

Indicator Name Reference List

- **Cumulative number of surgical cases performed as a percentage of target and variance from target**
 - Accountability Document (2006/2007 onwards)
 - Performance Management Accountability Indicators (April 21, 2006 version onwards)
 - Performance Management Dashboard (2006/2007 onwards)

Number and percentage of surgical cases on wait list that have already waited over 12 and 18 months

Section: Program-Specific Indicators

Sub-Section: Acute Care

Category: Health System Performance

Type of Measure: Efficiency

Status: Priority (2006/2007)
Quarterly Performance Management Report ("Dashboard") measure (starting 2006/2007)

Definition: This indicator shows the proportion of patients waiting for surgery as of a given date that had already waited over 12 or 18 months by region of service.

Template Content Last Changed: May 26, 2006

Interpretation

Rationale and Notes for Interpretation

The role of the Saskatchewan Surgical Care Network (SSCN) is to ensure a better, more equitable surgical care system for Saskatchewan people.

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The purpose of this indicator is to show the number of patients on the wait list as of a given date that have already waited too long for surgery. The goal is to encourage regions and surgeons to order their patients in as close to first come first served as possible in order to reduce the maximum wait for surgery.

If we only looked at the wait times for surgery performed cases we will not see potential cases that have been on the wait list for a long time and are still waiting for surgery.

The count of cases already waiting more than 12 months for surgery includes cases that have already waited more than 18 months.

Starting in February 2006, all wait times for left/right cataract surgeries have been readjusted to count the start of the wait for a second cataract surgery to be the date when the first surgery was performed. If the patient is waiting for cataract surgeries to be done on both eyes, only one surgery will be counted on the wait list rather than two. These adjustments have been applied retrospectively to historical data as well. The application of similar adjustments for other bilateral procedures is presently under discussion in the SSCN subcommittees, and their recommendation will be reflected in future versions of the calculation methodology for this indicator.

Targets / Benchmarks

The current Target Time Frames state that no patient should wait over 18 months for surgery.

Contributing Factors

To be determined.

Impact on Other Indicators

There is a backlog of patients that have waited too long for surgery. Clearing this backlog may temporarily affect the ability of regions to meet the mid-range Target Time Frames such as those cases that should have their surgery performed within three months.

Potential for Action and Influence

The goal of Saskatchewan Health is to increase the volumes of medically necessary procedures where patients are waiting excessively long times for surgery, in addition to managing wait lists in a more efficient manner in order to reduce the maximum wait time.

The values of this indicator can be improved by using information from the surgical registry to order patients appropriately according to their level of urgency and the time that they have already waited for surgery.

When less urgent patients jump the queue and get their surgery within less than three months, they take the spot of an urgent patient who needed to have their surgery performed quickly. This queue jumping also causes other less urgent patients to wait longer for surgery.

The best way of reducing the maximum wait for surgery is to only have urgent patients moved ahead in the queue. Less urgent patients should be scheduled for surgery in as close to first come first served order as possible. A report is available in the SSCN Surgical Patient Registry that gives a list of patients currently waiting for surgery. This shows the Priority Level of the patient and how long they have already waited for surgery so can be used as a tool for scheduling patients that have waited the longest in the next available spot.

Saskatchewan Health has a licence for health care modelling software called Checklist that can be used to analyse wait lists to see if they are being managed in an optimal fashion.

If surgeons that perform the same types of surgery can pool their patients so that the first available surgeon can treat the next longest waiting patient, then maximum waits for surgery could be reduced. This would allow one queue rather than a separate queue for each surgeon. Another way of achieving the same effect would be for referrals to surgeons from the General Practitioners to be pooled so that

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patients are sent to surgeons with a shorter wait list. Either suggestion would require SSCN policy, and significant consultation, planning and work with surgeons in order to implement.

The results of this indicator can also be improved by ensuring that the wait list only includes cases actually waiting for surgery. This can be achieved by regular audits of the wait list, phoning patients to confirm that they still want to have surgery, and removing cancellations from the wait list.

Data Tables

Not applicable until 2006/2007.

Technical Specification

Method of Calculation

Calculation

The number of cases on the wait list (as of given date) that have already waited more than 12 or 18 months for surgery, divided by the total number of cases on the wait list, expressed as a percentage.

Numerator

Number of cases on the wait list (as of given date) that have already waited more than 12 or 18 months for surgery.

The waits are calculated as the number of days from the initial booking date to the snapshot date. 12 months is translated into 365 days and 18 months is translated into 548 days.

Denominator

Total number of cases on the wait list as of given date.

Inclusions / Exclusions

Inclusions:

- Surgeries to be performed on out-of-province residents in Saskatchewan facilities.
- All surgeries booked in the Saskatchewan Surgical Care Network (SSCN) Surgical Patient Registry, with the exception of day surgery cystoscopies to be performed under a local anaesthetic in St. Paul's Hospital (Saskatoon).
- Patient unavailable dates have not been excluded from the wait times (please see the "Limitations" section below).
- The surgeries using funding targeted toward long waiting patients are included.
- The following facilities have reported surgery performed data to the Surgical Patient Registry in 2005/2006:
 - **Sun Country:** St. Joseph's Hospital (Estevan), Weyburn General Hospital
 - **Five Hills:** Moose Jaw Union Hospital
 - **Cypress:** Cypress Regional Hospital (Swift Current)
 - **Regina Qu'Appelle:** Regina General Hospital, Pasqua Hospital (Regina)
 - **Sunrise:** St. Peter's Hospital (Melville), Yorkton Regional Health Centre
 - **Saskatoon:** Saskatoon City Hospital, St. Paul's Hospital (Saskatoon), Royal University Hospital (Saskatoon)
 - **Heartland:** Kindersley Hospital, Rosetown and District Health Centre
 - **Kelsey Trail:** Melfort Hospital, Nipawin Hospital
 - **Prince Albert Parkland:** Big River Health Centre, Victoria Hospital (Prince Albert), Spiritwood and District Health Complex

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- **Prairie North:** Lloydminster Hospital, Northwest Health Facility (Meadow Lake), Battlefords Union Hospital.

Exclusions:

- Surgeries to be performed on Saskatchewan residents in out-of-province facilities.
- Surgeries to be performed outside of an operating room setting (e.g. in ambulatory care).
- Day surgery cystoscopies to be performed under a local anaesthetic in St. Paul's Hospital (Saskatoon).
- Hospitals that perform surgery in the operating room setting but are not yet reporting to the registry. Based on surgeries reported to the Discharge Abstract Database, these may include St. Elizabeth's Hospital (Humboldt), Tisdale Hospital, and Kamsack Hospital.

Source

Saskatchewan Surgical Care Network (SSCN) Surgical Patient Registry

Flow

The SSCN Surgical Patient Registry is a web based application that tracks the wait times and priority level for each surgery performed in the province. Data from each region are entered into the system and are stored in a central database maintained by the Health Information Solutions Centre, Saskatchewan Health. The smaller regions key the data directly into the database through a web based front end. Regina Qu'Appelle and Saskatoon upload the data into the registry from their surgical booking systems. For analysis purposes, it is best to wait about a month to allow for the majority of booking or surgery performed records to be entered. Analysts at Saskatchewan Health have access to all of the data and analysts in the regions have access to their own data.

Availability

Ongoing. The full fiscal year of data is available about one month after the end of the fiscal year.

Complete data is generally available within two weeks to a month after the booking or surgery performed dates.

Limitations

Unavailable dates are currently not removed from the wait time calculation. These dates are not reported in all regions, and in regions where they are reported, they have more of an effect on the shorter Target Time Frames. If unavailable dates were removed, then the time waited would appear to be shorter. This issue is presently under discussion in the SSCN subcommittees, and their recommendation will be reflected in future versions of the calculation methodology for this indicator.

There are a few hospitals that perform surgery that are not yet reporting to the registry (see exclusions).

Reports are run from a copy of the live database (rather than a final year end file) so numbers are subject to slight changes as records are added and corrected.

References

Checklist website. (www.checklist.co.uk)

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Saskatchewan Surgical Care Network (SSCN) website. (www.sasksurgery.ca)

Western Canada Wait List Project website. (www.wcwl.org)

Indicator Name Reference List

- **Number and percentage of surgical cases on wait list that have already waited over 12 and 18 months**
 - Accountability Document (2006/2007 onwards)
 - Performance Management Accountability Indicators (April 21, 2006 version onwards)
 - Performance Management Dashboard (2006/2007 onwards)

PROGRAM-SPECIFIC INDICATORS: HOME-BASED SUPPORTIVE CARE

Case mix index for supportive home care services

Section: Program-Specific Indicators

Sub-Section: Home-Based Supportive Care

Category: Community and Health System Characteristics

Type of Measure: Appropriateness

Status: Long-term (2007/2008)

Definition: Number of clients accessing supportive home care services for a specified time period by MDS Home Care (MDS-HC) Resource Utilization Group (RUG) category, expressed as a percentage of the total number of clients accessing supportive home care services.

Template Content Last Changed: Template yet to be developed.

Indicator Name Reference List

- **Distribution of level of care on admission to supportive home care**
 - Accountability Document (2003/2004)
- **Delivery of appropriate home based supportive services, within continuum of care, as measured by (2) distribution of level of care on admission to supportive home care**
 - Accountability Document (2004/2005)
- **Distribution of level of care for supportive home care services**
 - Performance Management Accountability Indicators (February 16 and 18, 2005 versions)
- **Case mix index for supportive home care services**
 - Accountability Document (2005/2006 onwards)
 - Performance Management Accountability Indicators (March 16, 2005 version onwards)

Average wait time between referral and assessment for supportive home care services

Section: Program-Specific Indicators

Sub-Section: Home-Based Supportive Care

Category: Health System Performance

Type of Measure: Efficiency

Status: Long-term (2007/2008)

Definition: Average time in days from expression of desire for service by the client, or referral from another provider, to completion of assessment for supportive home care services for a specified time period.

Template Content Last Changed: Template yet to be developed.

Indicator Name Reference List

- **Average length of time between referral and assessment**
 - Accountability Document (2003/2004)
- **Timely access to home-based supportive services, as measured by (1) average length of time between referral and assessment**
 - Accountability Document (2004/2005)
- **Average wait time between referral and assessment for supportive home care services**
 - Accountability Document (2005/2006 onwards)
 - Performance Management Accountability Indicators (all versions to date)

PROGRAM-SPECIFIC INDICATORS: POPULATION HEALTH SERVICES

Exclusive breastfeeding rates

Section: Program-Specific Indicators

Sub-Section: Population Health Services

Category: Health System Performance

Type of Measure: Outcome

Status: Priority (2006/2007)

Definition: Of the mothers surveyed, exclusive breastfeeding rates refer to the percentage that are exclusively breastfeeding their baby for 6 months (24 weeks to less than 28 weeks). Exclusive breastfeeding, based on the World Health Organization (WHO) definition, refers to the practice of feeding only breast milk. Breastmilk includes breastfeeding, expressed breastmilk or donor milk, and undiluted drops or syrups consisting of vitamins, mineral supplements or medicines. Water, breast milk substitutes, other liquids and solid foods are excluded.

Template Content Last Changed: April 21, 2006

Interpretation

Rationale and Notes for Interpretation

The prevalence of exclusive breastfeeding is a useful health indicator for monitoring the health of our infant/maternal population. Survey data combined with other Health Region information and community consultation provide the evidence needed to make appropriate resource allocation and practice changes in order to attain the breastfeeding duration rates recommended by Health Canada, WHO and UNICEF.

Exclusive breastfeeding is recommended for the first six months of life for healthy term infants, as breast milk is the best food for optimal growth. Infants should be introduced to nutrient-rich, solid foods with particular attention to iron at six months, with continued breastfeeding for up to two years and beyond (Health Canada, 2005). Health Canada (2005), in making their recommendation for exclusive breastfeeding to six months, identified research showing improved health outcomes as a result. They note there is good evidence that two more months of exclusive breastfeeding (i.e. from four to six months) provides infants with additional protection against gastrointestinal infections during that two-month period. As well, results from a large prospective study in Belarus, where sanitary conditions are similar to those in Canada, showed that infants exclusively breastfed for six months or more had a statistically significant lower risk of gastrointestinal infection (one or more occurrences) compared to infants exclusively breastfed for three months who continued partial breastfeeding to six months.

The Breastfeeding Committee of Canada recommends that organizations support the recommendation of exclusive breastfeeding to six months through measurement of breastfeeding rates at various time periods. In the context of selecting one indicator, it is recommended that the 6-month exclusive rate be measured. Current initiation rates are already quite good. Measuring the change in health behaviour to reflect the new recommended national and international recommendation for 6 months exclusive breastfeeding is a much more indicative health indicator. It is known that the rates of breastfeeding drop

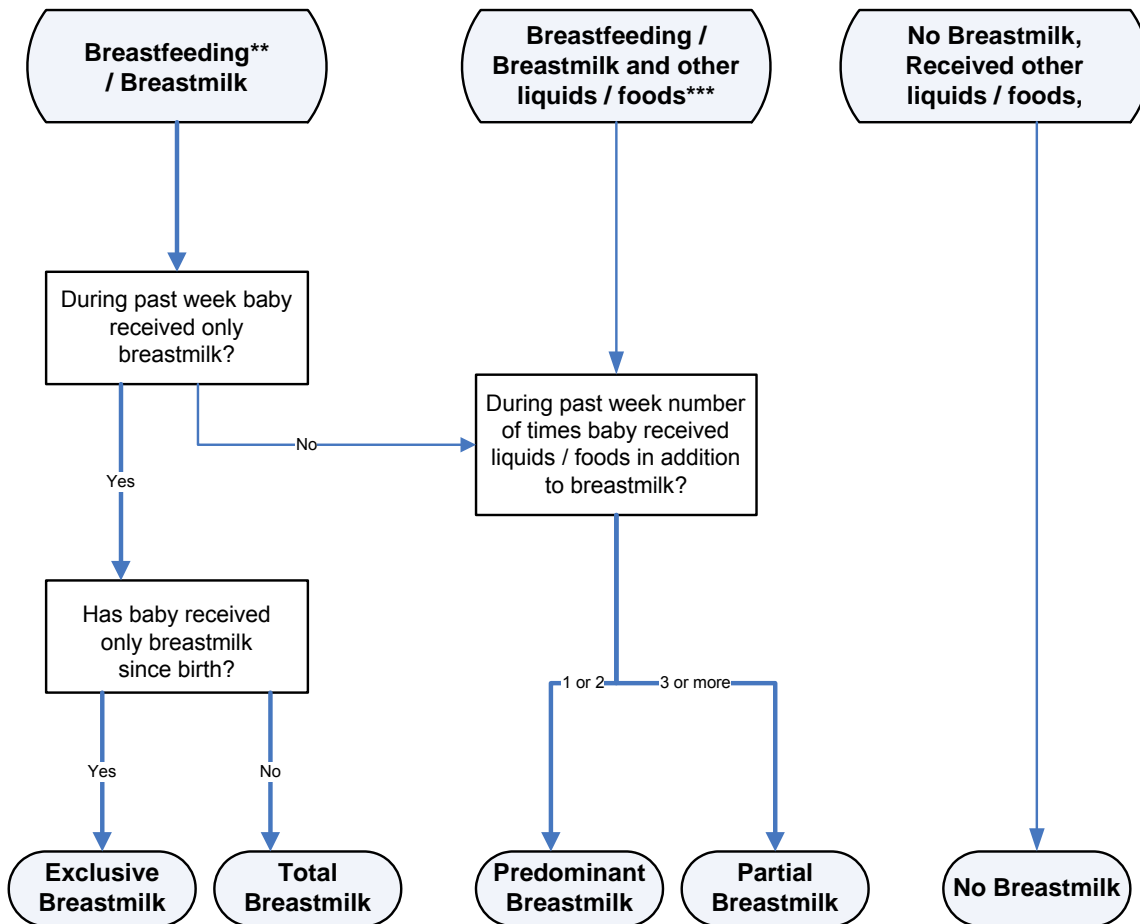
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off quickly and consistently after discharge from hospital (Breastfeeding Implementation Committee, 2005). It must be understood this indicator will be low to begin with as the Health Canada recommendation was just released in 2005.

The algorithm provided below is a guideline for data collection and is specific for infants to the age of six months. It uses the following definitions:

- **Breastmilk** includes breastfeeding, expressed breastmilk or donor milk and undiluted drops or syrups consisting of vitamins, mineral supplements or medicines.
- **Exclusive breastmilk** means that no food or liquid other than breastmilk, not even water, is given to the infant from birth by the mother, health care provider, or family member/supporter.

What Baby Has Been Fed*



*Interpretation for **hospital births at discharge** – What baby has been fed since birth? The “predominant” and “partial” breastmilk categories *may* be combined to make one category (both) in hospital records.

*Interpretation in **Community Health settings** – What baby has been fed during the past 7 days? The above categories will provide a “snapshot” of feeding practices for infants at a specific time frame.

**Breastmilk includes breastfeeding, expressed breastmilk or donor milk and undiluted drops or syrups consisting of vitamins, mineral supplements or medicines.

***Other liquids or foods include commercial formula, water / glucose water, evaporated milks, goat’s milk, and traditional drinks such as sweetened and flavored waters, teas and infusions, and cereals and thickeners.

Source: Breastfeeding Committee for Canada. 2004. “Breastfeeding Definitions and Data Collection Periods”.

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In the Canadian Community Health Survey (CCHS), females between ages 15 and 55 years were asked the following questions:

- Have you given birth in the last 5 years?
- If yes to the above, did you breastfeed or try to breastfeed your baby if only for a short time?
- If yes to the above, are you still breastfeeding? If the answer is yes, then she is excluded.
- How long did you breastfeed? The answers are slotted into specific week categories.
- How old was your last baby when your first added any other liquids (e.g. milk, formula, teas, herbal mixtures) or solid food to the baby's feeds? The answers are slotted into specific week categories.

Please see "Appendix D – Canadian Community Health Survey (CCHS)" for more information on using and interpreting CCHS data.

Targets / Benchmarks

There are no national targets or benchmarks (current provincial scan underway).

Contributing Factors

- Lack of training, skills and supportive attitudes of health care workers who interact with breastfeeding mothers has been demonstrated to reduce breastfeeding rates.
- Societal and family values.
- Formula supplementation that is not medically necessary in hospital negatively impacts new mother's and staffs' problem solving interventions.
- Mothers returning to work or school earlier than 6-8 months postpartum have been shown to be a cause of early weaning.
- Lack of the need for informed consent regarding use of formula and its health effects has allowed staff to supplement without medical prescription and creates an environment of social acceptance of formula.
- Lack of timely and local access to skilled clinicians who can problem solve breastfeeding problems has lead to early introduction of formula.
- Very rarely, physiological conditions of infant or mother complicate or prohibit breastfeeding.

Impact on Other Indicators

Exclusive breastfeeding has been shown to reduce rate of gastrointestinal infections, ear infections and respiratory illness. In the long term exclusive breastfeeding to 6 months is expected to reduce type 2 diabetes and childhood obesity.

Potential for Action and Influence

Exclusive breastfeeding to 6 months is now considered the best practice recommendation for infant nutrition. Improvement in exclusive breastfeeding rates is amenable to improvement through changes in staff skill and attitudes and population health promotion strategies to change valuing and environments supportive of exclusive breastfeeding. Research evidence evaluating the implementation of best practice standards (Baby Friendly™) to change health care staff knowledge, skills and attitudes has demonstrated increases in breastfeeding rates in their facilities. There is enough variability in the 4 month regional health authority exclusive breastfeeding rates from the 2003 Canadian Community Health Survey (CCHS) to conclude that introduction of best practices can influence the exclusive breastfeeding rates among mothers (Breastfeeding Implementation Committee, 2005).

Data Tables

Please see the corresponding section in Appendix A of the document “Performance Management Accountability Indicators: Data Tables”.

Technical Specification

Method of Calculation

Calculation

Estimated number of mothers surveyed who said that they breastfed 24 to less than 28 weeks divided by the number of women aged 15 to 55 years who had a baby in the last 5 years, expressed as a percentage (with weighting adjusted to reflect non-response).

Numerator

Estimated number of mothers surveyed who said that they breastfed 24 to less than 28 weeks in response to “how old was your baby when you first added any other liquids or solids to the babies feeds”.

Denominator

Number of women aged 15 to 55 years who had a baby in the last 5 years, excluding women who are still breastfeeding that child.

Inclusions / Exclusions

Inclusions:

- All women aged 15 to 55 years who had a baby in the last 5 years prior to the survey administration.

Exclusions:

- CCHS is a telephone survey so mothers without telephones would not be surveyed.
- CCHS is not administered to people living in First Nations communities, so First Nations women will be underrepresented. If they are living off reserve, they could be sampled.
- Women currently breastfeeding.
- Young women who give birth before the age of 15, which is more likely to occur in the North, are not included in the survey.

Source

Canadian Community Health Survey (CCHS) – Saskatchewan Share File

Flow

Please see “Appendix D – Canadian Community Health Survey (CCHS)” for more information.

Availability

The survey is conducted bi-annually, and data is usually available within one year of survey completion. There are currently two years of data available: Cycle 1.1 (2000/2001) and Cycle 2.1 (2003).

Limitations

It is important to keep in mind when using CCHS data for breastfeeding rates that respondents have the potential to have been under several different “guidelines” for breastfeeding. Data were collected in 2003, 2005, etc., but mothers who gave birth in the previous five years were eligible to answer the breastfeeding questions. This means that in the 2005 survey, the breastfeeding questions are referring to children born between 2000 and 2005. In 2001, the World Health Organization recommended exclusive breastfeeding for six months. In 2002 the Breastfeeding Committee of Canada recommended the same thing, however, Health Canada’s recommendation did not come out until 2004. The previous

recommendations were exclusive breastfeeding to 4 months and continued breastfeeding to one year. Therefore, for children born between 2000 and 2004, their mothers were under different guidelines of how long to breastfed their children.

Numbers sampled from the north are not large enough for each of the 3 health regions, so they are combined. As well, young women who give birth before the age of 15, which is more likely to be occurring in the North, are not included in the survey.

The survey is a retrospective of women who have had a baby in the last 5 years, so there can be some recollection problems.

Please see “Appendix D – Canadian Community Health Survey (CCHS)” for more information on limitations.

References

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Indicator Name Reference List

- **Breastfeeding rates and duration subject to development and mutual agreement of appropriate indicators and a reporting process**
 - Accountability Document (2003/2004 and 2004/2005)
- **Breastfeeding rates**
 - Accountability Document (2005/2006)
 - Performance Management Accountability Indicators (May 21, 2005 version and earlier)
- **Exclusive breastfeeding rates**
 - Accountability Document (2006/2007 onwards)
 - Performance Management Accountability Indicators (April 21, 2006 version onwards)

Percentage of genital chlamydia cases with complete or required surveillance information in the electronic provincial surveillance system within established time frames

Section: Program-Specific Indicators

Sub-Section: Population Health Services

Category: Health System Performance

Type of Measure: Process Effectiveness

Status: Priority (2006/2007)

[This indicator replaced the Population Health Services indicator “Genital chlamydia rate per 100,000 population” in 2005/2006.]

Definition: This indicator is expressed as the proportion of chlamydia cases with complete or required surveillance information that are entered into the provincial surveillance

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system following complete investigations within established time frames. This indicator is a measure of the effectiveness of public health management of cases and contacts to prevent further spread of the disease.

Template Content Last Changed: April 21, 2006

Interpretation

Rationale and Notes for Interpretation

Under *The Public Health Act* and its Disease Control Regulations, physicians and laboratories are required to notify Medical Health Officers in Regional Health Authorities (RHAs) of cases of prescribed communicable diseases. The RHA Public Health Unit receiving such notification, under the direction of the Medical Health Officer, enters case data into the electronic provincial public health information system (iPHIS), and conducts a case investigation to ensure that the person infected has obtained appropriate counselling and treatment and that contacts of the infected person have been identified and informed of their exposure and counselled with respect to treatment.

The proportion of cases that are entered into the surveillance system, investigated and completed within established time frames is a measure of performance of the health system in following up on communicable disease cases to ensure effective surveillance, appropriate treatment of individual cases and to prevent further spread of the disease.

Genital chlamydia is the most widely spread communicable disease in the province comprising over 50% of reported communicable diseases annually with cases occurring in every health region. It is an appropriate proxy for all the reportable communicable diseases.

Targets / Benchmarks

95% of case records with complete or required surveillance information in each health region.

Baseline data will be accumulated in 2006/2007.

Contributing Factors

- Availability of human resources to follow up and record information.
- Robustness of technical infrastructure for recording information.
- Timeliness and completeness of case investigation and follow up.
- Cooperation of attending physician to provide required information.
- Laboratory work-load and capacity to report on time.
- Availability and cooperation of clients to provide information.

Impact on Other Indicators

The effectiveness of chlamydia investigation and follow up system will have impact on the effectiveness of investigation and follow up of all other communicable diseases, and will serve as proxy for them.

Potential for Action and Influence

Sexual health programs address the high rate of sexually transmitted diseases including genital chlamydia.

Timely investigation of chlamydia cases and contact reduces the probability of transmission of disease.

Recording case data, risk factors for transmission and public health interventions in a timely fashion provides evidence for planning relevant public health programs.

Data Tables

Not applicable until 2006/2007.

Technical Specification

Method of Calculation

Calculation

The number of genital *Chlamydia trachomatis* case records with complete or required surveillance data for a specified time period divided by the number of cases of genital *Chlamydia trachomatis* confirmed by diagnostic laboratories entered on iPHIS with residence within the geographical boundaries of a specified health region for a specified time period multiplied by 100.

Numerator

The number of case records for genital *Chlamydia trachomatis* within a specified time period with complete or required surveillance data.

Denominator

The number of laboratory confirmed cases of genital *Chlamydia trachomatis* with residence within the geographical boundaries of a specified health region for a specified time period.

Inclusions / Exclusions

Exclusions:

- Laboratory confirmed *Chlamydia trachomatis* of the upper respiratory tract.
- Individuals residing outside of Saskatchewan.

Source

The source of the numerator is chlamydia case records on iPHIS with complete or required surveillance information.

The source for the denominator is positive laboratory results of genital *Chlamydia trachomatis* reported by diagnostic laboratories to the local medical health officer of a specified health region.

Flow

Laboratories are mandated by *The Public Health Act* to report positive results of *Chlamydia trachomatis* to the local medical health officer of the health region in which the infected person resides. Information for public health response is collected from the attending physician or the client. The case record comprises required surveillance data elements as well as information on the management of the case. The Disease Control Regulations under *The Public Health Act* specify that information on these cases must be reported to the provincial Coordinator of Communicable Disease within two weeks or an earlier timeframe as designated by the Coordinator. Also under the regulations, it is the RHA's responsibility to pursue "risk factor information", even if it was not provided by the physician on the notification form.

For the list of mandatory surveillance items, please refer to the spreadsheet (Core and disease grp specific minimum data elements required for reporting to SK Hlth.xls) distributed by the Communicable Disease Control (CDC) Unit, Population Health Branch (PHB), Saskatchewan Health. The required elements vary with the disease and the iPHIS module. There is also another list with additional items to be reported in a "prescribed manner" under the legislation. These two lists can be combined for ease of reference.

Availability

Annually. The timeframe for data availability in reference to the end of the calendar year is yet to be determined.

Limitations

Positive cases tested by diagnostic laboratories but not resident in the province are not included in health region rates.

All laboratory confirmations may not be received by health region.

References

Government of Saskatchewan. 2004. *The Public Health Act*.
(www.qp.gov.sk.ca/documents/english/Statutes/Statutes/p37.pdf)

Government of Saskatchewan. 2005. *The Public Health Act, 1994*.
(www.qp.gov.sk.ca/documents/English/Statutes/Statutes/P37-1.pdf)

Indicator Name Reference List

- **Percentage of genital chlamydia cases with complete or required surveillance information in the electronic provincial surveillance system within established time frames**
 - Accountability Document (2006/2007 onwards)
 - Performance Management Accountability Indicators (April 21, 2006 version onwards)

PROGRAM-SPECIFIC INDICATORS: COMMUNITY CARE SERVICES

Average wait time between initial contact (with client requesting service, or referral from another provider) and first face-to-face contact by a mental health services provider for outpatient mental health services (child and youth, adult community, psychiatric rehabilitation)

Section:	Program-Specific Indicators
Sub-Section:	Community Care Services
Category:	Health System Performance
Type of Measure:	Efficiency
Status:	Long-term (2007/2008)
Definition:	Average duration from expression of desire for non-emergency outpatient mental health service by the client, or referral from another provider, to first face-to-face

Performance Management Accountability Indicators

contact by a mental health service provider by sub program (General, Adult Community, Child and Youth), expressed in days.

Template Content Last Changed: Template yet to be developed.

Indicator Name Reference List

- **Timely access to OP mental health service, measured by (1) average length of time by mental health program from initial contact – with client requesting service, or referral from another provider – to first face-to-face contact by a mental health-service provider**
 - Accountability Document (2003/2004)
- **Timely access to outpatient mental health service, measured by the average length of time by mental health program from initial contact – with client requesting service, or referral from another provider – to first face-to-face contact by a mental health services provider**
 - Accountability Document (2004/2005)
- **Average wait time between initial contact (with client requesting service, or referral from another provider) and first face-to-face contact by a mental health services provider for outpatient mental health services, by sub program**
 - Performance Management Accountability Indicators (February 16 and 18, 2005 versions)
- **Average wait time between initial contact (with client requesting service, or referral from another provider) and first face-to-face contact by a mental health services provider for outpatient mental health services (by sub program)**
 - Accountability Document (2005/2006)
 - Performance Management Accountability Indicators (March 16, March 31 and May 21, 2005 versions)
- **Average wait time between initial contact (with client requesting service, or referral from another provider) and first face-to-face contact by a mental health services provider for outpatient mental health services (child and youth, adult community, psychiatric rehabilitation)**
 - Accountability Document (2006/2007 onwards)
 - Performance Management Accountability Indicators (April 21, 2006 version onwards)

Problem gambling treatment completion rates per 100 admissions

Section: Program-Specific Indicators

Sub-Section: Community Care Services

Category: Health System Performance

Type of Measure: Output

Status: Long-term (2007/2008)

[This indicator was Active in 2003/2004, and included in 2003/2004 RHA Annual Reports.]

Definition: Number of admissions that complete problem gambling treatment expressed as a percentage of total problem gambling admissions for a specified time period (e.g. fiscal year).

Template Content Last Changed: Template yet to be developed.

Indicator Name Reference List

- **Provision of quality problem gambling services, measured by (1) percentage of clients who complete treatment**
 - Accountability Document (2003/2004)
- **Problem gambling treatment completion rates for inpatient and outpatient services**
 - Core Indicators for Progress & Results (2003/2004)
- **Provision of appropriate and effective problem gambling services, measured by the percentage of clients who complete treatment**
 - Accountability Document (2004/2005)
- **Problem gambling inpatient and outpatient treatment completion rates**
 - Performance Management Accountability Indicators (February 16 and 18, 2005 versions)
- **Problem gambling treatment completion rates per 100 admissions**
 - Accountability Document (2005/2006 onwards)
 - Performance Management Accountability Indicators (March 16, 2005 version onwards)

Average wait time for admission to alcohol and drug outpatient services

Section: Program-Specific Indicators

Sub-Section: Community Care Services

Category: Health System Performance

Type of Measure: Efficiency

Status: Priority (2006/2007)
Quarterly Performance Management Report (“Dashboard”) measure (starting 2006/2007)

Definition: To be determined.

Template Content Last Changed: Template yet to be developed.

Indicator Name Reference List

- **Average wait time for admission to alcohol and drug outpatient services**
 - Accountability Document (2006/2007 onwards)
 - Performance Management Accountability Indicators (April 21, 2006 version onwards)
 - Performance Management Dashboard (2006/2007 onwards)

PROGRAM-SPECIFIC INDICATORS: HOME-BASED ACUTE AND PALLIATIVE CARE

Average wait time between referral and assessment for acute and palliative home care services

Section: Program-Specific Indicators
Sub-Section: Home-Based Acute and Palliative Care
Category: Health System Performance
Type of Measure: Efficiency
Status: Long-term (2007/2008)
Definition: To be determined.

Template Content Last Changed: Template yet to be developed.

Indicator Name Reference List

- **Average wait time between referral and assessment for acute and palliative home care services**
 - Accountability Document (2006/2007 onwards)
 - Performance Management Accountability Indicators (April 21, 2006 version onwards)

Average wait time between assessment and commencement of acute and palliative home care services

Section: Program-Specific Indicators
Sub-Section: Home-Based Acute and Palliative Care
Category: Health System Performance
Type of Measure: Efficiency
Status: Priority (2006/2007)
Definition: To be determined.

Template Content Last Changed: Template yet to be developed.

Indicator Name Reference List

- **Average wait time between assessment and commencement of acute and palliative home care services**
 - Accountability Document (2006/2007 onwards)
 - Performance Management Accountability Indicators (April 21, 2006 version onwards)

Percentage of palliative home care clients with unresolved pain

Section: Program-Specific Indicators

Sub-Section: Home-Based Acute and Palliative Care

Category: Health System Performance

Type of Measure: Quality

Status: Long-term (2007/2008)

Definition: The percentage of palliative home care clients reporting pain who report unresolved pain.

Template Content Last Changed: Template yet to be developed.

Indicator Name Reference List

- **Provision of quality care to home care clients, measured by (1) percentage of clients with unresolved pain among palliative home care clients**
 - Accountability Document (2003/2004 and 2004/2005)
- **Percentage of palliative home care clients with unresolved pain**
 - Accountability Document (2005/2006 onwards)
 - Performance Management Accountability Indicators (all versions to date)

Percentage of palliative home care clients who choose to die at home and receive services in support of that option

Section: Program-Specific Indicators

Sub-Section: Home-Based Acute and Palliative Care

Category: Health System Performance

Type of Measure: Quality

Status: Long-term (2007/2008)

Definition: The percentage of palliative home care clients who in choosing to die at home are receiving home care services in support of this option.

Template Content Last Changed: Template yet to be developed.

Indicator Name Reference List

- **Provision of quality care to home care clients, measured by (2) percentage of palliative home care clients who choose to die at home and receive services in support of that option**
 - Accountability Document (2003/2004 and 2004/2005)
- **Percentage of palliative home care clients who choose to die at home**
 - Performance Management Accountability Indicators (February 16 and 18, 2005 versions)
- **Percentage of palliative home care clients who choose to die at home and receive services in support of that option**
 - Accountability Document (2005/2006 onwards)
 - Performance Management Accountability Indicators (March 16, 2005 version onwards)

Percentage of patients discharged from acute care to home care with post-acute discharge plan in place on discharge

Section: Program-Specific Indicators

Sub-Section: Home-Based Acute and Palliative Care

Category: Health System Performance

Type of Measure: Quality

Status: Long-term (2007/2008)

Definition: Percentage of acute care clients requiring post-acute home care services who have a discharge plan in place on discharge to home care for a specified time period.

Template Content Last Changed: Template yet to be developed.

Indicator Name Reference List

- **Seamless transfer of patients between acute care and home care, measured by (1) percentage of patients discharged from hospital to home care with care plan in place upon discharge**
 - Accountability Document (2003/2004)
- **Seamless transfer of patients between acute care and home care, measured by percentage of patients discharged from hospital to home care with care plan in place upon discharge**
 - Accountability Document (2004/2005)
- **Percentage of patients discharged from acute care with post-acute discharge plan in place on discharge**
 - Performance Management Accountability Indicators (February 16 and 18, 2005 versions)
- **Percentage of patients discharged from acute care to home care with post-acute discharge plan in place on discharge**
 - Accountability Document (2005/2006 onwards)
 - Performance Management Accountability Indicators (March 16, 2005 version onwards)

PROGRAM-SPECIFIC INDICATORS: PRIMARY HEALTH SERVICES

Number of discrete clients receiving primary health care services in the RHA

Section:	Program-Specific Indicators
Sub-Section:	Primary Health Services
Category:	Health System Performance
Type of Measure:	Structure / Process
Status:	Priority (2006/2007) Quarterly Performance Management Report ("Dashboard") measure (starting 2006/2007)
Definition:	To be determined.
Template Content Last Changed:	Template yet to be developed.

Indicator Name Reference List

- **Number of discrete clients receiving primary health care services in the RHA**
 - Accountability Document (2006/2007 onwards)
 - Performance Management Accountability Indicators (April 21, 2006 version onwards)
 - Performance Management Dashboard (2006/2007 onwards)

Average number of contacts per client receiving services in the RHA

Section:	Program-Specific Indicators
Sub-Section:	Primary Health Services
Category:	Health System Performance
Type of Measure:	Structure / Process
Status:	Priority (2006/2007) Quarterly Performance Management Report ("Dashboard") measure (starting 2006/2007)
Definition:	To be determined.
Template Content Last Changed:	Template yet to be developed.

Indicator Name Reference List

- **Average number of contacts per client receiving services in the RHA**
 - Accountability Document (2006/2007 onwards)
 - Performance Management Accountability Indicators (April 21, 2006 version onwards)
 - Performance Management Dashboard (2006/2007 onwards)

Number of Healthline calls for the RHA

Section: Program-Specific Indicators

Sub-Section: Primary Health Services

Category: Health System Performance

Type of Measure: Structure / Process

Status: Priority (2006/2007)
Quarterly Performance Management Report (“Dashboard”) measure (starting 2006/2007)

Definition: To be determined.

Template Content Last Changed: Template yet to be developed.

Indicator Name Reference List

- **Number of Healthline calls for the RHA**
 - Accountability Document (2006/2007 onwards)
 - Performance Management Accountability Indicators (April 21, 2006 version onwards)
 - Performance Management Dashboard (2006/2007 onwards)

PROGRAM-SPECIFIC INDICATORS: EMERGENCY RESPONSE SERVICES

“Chute time” (placeholder for potential new indicator)

Section: Program-Specific Indicators

Sub-Section: Emergency Response Services

Category: To be determined.

Type of Measure: To be determined.

Status: Long-term (2007/2008)

Definition: To be determined.

Template Content Last Changed: Template yet to be developed.

Indicator Name Reference List

- “Chute time” (placeholder for potential new indicator)
 - Performance Management Accountability Indicators (April 21, 2006 version onwards)

PROGRAM-SPECIFIC INDICATORS: MENTAL HEALTH AND ADDICTION SERVICES

Average wait time for admission to alcohol and drug long-term residential services

Section: Program-Specific Indicators
Sub-Section: Mental Health and Addiction Services
Category: Health System Performance
Type of Measure: Efficiency
Status: Priority (2006/2007)
Definition: To be determined.

Template Content Last Changed: Template yet to be developed.

Indicator Name Reference List

- **Average wait time for admission to alcohol and drug long-term residential services**
 - Accountability Document (2006/2007 onwards)
 - Performance Management Accountability Indicators (April 21, 2006 version onwards)

Average wait time for admission to alcohol and drug detoxification services

Section: Program-Specific Indicators
Sub-Section: Mental Health and Addiction Services
Category: Health System Performance
Type of Measure: Efficiency

Performance Management Accountability Indicators

Status: Priority (2006/2007)
Quarterly Performance Management Report (“Dashboard”) measure (starting 2006/2007)

Definition: To be determined.

Template Content Last Changed: Template yet to be developed.

Indicator Name Reference List

- **Average wait time for admission to alcohol and drug detoxification services**
 - Accountability Document (2006/2007 onwards)
 - Performance Management Accountability Indicators (April 21, 2006 version onwards)
 - Performance Management Dashboard (2006/2007 onwards)

Average wait time for admission to alcohol and drug stabilization services

Section: Program-Specific Indicators

Sub-Section: Mental Health and Addiction Services

Category: Health System Performance

Type of Measure: Efficiency

Status: Priority (2006/2007)
Quarterly Performance Management Report (“Dashboard”) measure (starting 2006/2007)

Definition: To be determined.

Template Content Last Changed: Template yet to be developed.

Indicator Name Reference List

- **Average wait time for admission to alcohol and drug stabilization services**
 - Accountability Document (2006/2007 onwards)
 - Performance Management Accountability Indicators (April 21, 2006 version onwards)
 - Performance Management Dashboard (2006/2007 onwards)

APPENDIX B – INACTIVE INDICATORS

ORGANIZATIONAL EFFECTIVENESS INDICATORS: HEALTH HUMAN RESOURCES

Total cost to the system of lost-time WCB claims

Section:	Organizational Effectiveness Indicators
Sub-Section:	Health Human Resources
Category:	Organizational Effectiveness
Type of Measure:	Output
Status:	Dropped (2005/2006)
Definition:	The total financial cost to the health sector of lost-time Workers' Compensation Board (WCB) claims for a specified time period.

Template Content Last Changed: March 31, 2005

Indicator Name Reference List

- **Cost: Total cost to the system of lost-time WCB claims**
 - Accountability Document (2004/2005)
- **Cost: Total cost to the system**
 - Performance Management Dashboard (2004/2005)
- **Total cost to the system of lost-time WCB claims**
 - Accountability Document (2005/2006)
 - Performance Management Accountability Indicators (all versions to date)

Turnover rate: separation rate per 100 permanent full and part time employees

Section:	Organizational Effectiveness Indicators
Sub-Section:	Health Human Resources
Category:	Organizational Effectiveness
Type of Measure:	Efficiency
Status:	Dropped (2005/2006)

Performance Management Accountability Indicators

Definition: The number of full and part time permanent staff who terminated or ceased employment, expressed as a rate per 100 total permanent full and part time employees.

Template Content Last Changed: March 31, 2005

Indicator Name Reference List

- **Turnover rates**
 - Accountability Document (2003/2004 and 2004/2005)
- **Turnover rate: separation rate**
 - Performance Management Accountability Indicators (February 16 and 18, 2005 versions)
- **Turnover rate: separation rate per 100 permanent full and part time employees**
 - Accountability Document (2005/2006)
 - Performance Management Accountability Indicators (March 16, 2005 version and onwards)

Turnover rate: rate of internal transfers and promotions per 100 full and part time employees

Section: Organizational Effectiveness Indicators

Sub-Section: Health Human Resources

Category: Organizational Effectiveness

Type of Measure: Efficiency

Status: Dropped (2005/2006)

Definition: The number of full and part time staff who moved from one job to another within an organization in a given year, expressed as a rate per 100 total full and part time employees.

Template Content Last Changed: March 31, 2005

Indicator Name Reference List

- **Turnover rates**
 - Accountability Document (2003/2004 and 2004/2005)
- **Turnover rate: rate of internal transfers and promotions**
 - Performance Management Accountability Indicators (February 16 and 18, 2005 versions)
- **Turnover rate: rate of internal transfers and promotions per 100 full and part time employees**
 - Accountability Document (2005/2006)
 - Performance Management Accountability Indicators (March 16, 2005 version and onwards)

ORGANIZATIONAL EFFECTIVENESS INDICATORS: FINANCIAL

Budget versus actual operating expenditures by funding pool

Section:	Organizational Effectiveness Indicators
Sub-Section:	Financial
Category:	Organizational Effectiveness
Type of Measure:	Financial
Status:	Dropped (2005/2006) <i>[This indicator was Active for 2004/2005 only.]</i> Quarterly Performance Management Report (“Dashboard”) measure (2004/2005 only)
Definition:	A comparison of budgeted versus actual operating expenditures in the Acute Care, Supportive Care, Community Based, and Program Support funding pools.

Template Content Last Changed: March 31, 2005

Indicator Name Reference List

- **Annual comparison of budgeted and actual expenditures by funding pool**
 - Accountability Document (2003/2004)
- **Budget versus actual expenditures by funding pool to date and forecast**
 - Accountability Document (2004/2005)
- **Budget versus actual expenditures by funding pool – year-to-date [surplus/deficit]**
Budget versus actual expenditures by funding pool – year-end forecast [surplus/deficit]
 - Performance Management Dashboard (2004/2005)
- **Budget versus actual expenditures by funding pool – year-to-date and year-end forecast**
 - Performance Management Accountability Indicators (February 16 and 18, 2005 versions)
- **Budget versus actual operating expenditures by funding pool**
 - Accountability Document (2005/2006)
 - Performance Management Accountability Indicators (March 16, 2005 version and onwards)

PROGRAM-SPECIFIC INDICATORS: PROVINCE-WIDE SERVICES

Average length of stay of mental health inpatients at Saskatchewan Hospital North Battleford (SHNB), by unit

Section: Program-Specific Indicators

Sub-Section: Province-Wide Services

Category: Health System Performance

Type of Measure: Output

Status: Dropped (2005/2006)

[Originally planned to be Active for 2005/2006.]

Definition: Average length of stay in days at Saskatchewan Hospital North Battleford (SHNB) for inpatients with a primary mental health diagnosis by unit (Admissions, Rehabilitation I, Rehabilitation II, Transitional Unit, Cottage Muskwa, Donaldson House, Psycho-geriatrics, Organic Mental Disorders, and Forensic Program).

Template Content Last Changed: March 31, 2005

Indicator Name Reference List

- **Provision of appropriate and effective care to SHNB inpatients, measured by average length of stay by unit**
 - Accountability Document (2004/2005)
- **Average length of stay of mental health inpatients at SHNB, by unit**
 - Performance Management Accountability Indicators (February 16 and 18, 2005 versions)
- **Average length of stay of mental health inpatients at Saskatchewan Hospital North Battleford (SHNB), by unit**
 - Accountability Document (2005/2006)
 - Performance Management Accountability Indicators (March 16, 2005 version and onwards)

Rehabilitation treatment completion rates – Wascana Rehabilitation Centre and Saskatoon City Hospital

Section: Program-Specific Indicators

Sub-Section: Province-Wide Services

Category: Health System Performance

Type of Measure: Efficiency

Performance Management Accountability Indicators

Status: Dropped (2004/2005)
[This indicator was replaced in 2004/2005 with the Province-Wide Services indicators "Average length of stay of rehabilitation inpatients – Wascana Rehabilitation Centre and Saskatoon City Hospital" "Length of stay efficiency of inpatient rehabilitation programs – Wascana Rehabilitation Centre and Saskatoon City Hospital".]

Definition: Number of admissions at Wascana Rehabilitation Centre (WRC) and Saskatoon City Hospital (SCH) who complete rehabilitation treatment, by Regional Health Authority (RHA) of residence.

Template Content Last Changed: Not applicable.

Indicator Name Reference List

- **Provision of appropriate and effective care to patients in Wascana Rehab and Saskatoon City Hospital, measured by percentage of clients who complete treatment by RHA**
 - Accountability Document (2004/2005)
- **Rehabilitation treatment completion rates – Wascana Rehabilitation Centre and Saskatoon City Hospital**
 - Performance Management Accountability Indicators (all versions to date)

Average length of stay of rehabilitation inpatients – Wascana Rehabilitation Centre and Saskatoon City Hospital

Section: Program-Specific Indicators

Sub-Section: Province-Wide Services

Category: Health System Performance

Type of Measure: Efficiency

Status: Dropped (2005/2006)
[Originally planned to be Active for 2005/2006 as a replacement for the Province-Wide Services indicator "Rehabilitation treatment completion rates – Wascana Rehabilitation Centre and Saskatoon City Hospital".]

Definition: Length of stay of a rehabilitation inpatient is defined as the number of days between the date of admission to the rehabilitation facility and the date of discharge from the facility, less any days on which the client could not participate in the rehabilitation program for a health reason (e.g. service interruptions). The number days waiting for admission to the rehabilitation facility are not included.

This indicator measures the average length of stay of rehabilitation inpatients at Wascana Rehabilitation Centre (WRC) and Saskatoon City Hospital (SCH) for a specified time period.

Template Content Last Changed: March 31, 2005

Indicator Name Reference List

- **Average length of stay of rehabilitation inpatients – Wascana Rehabilitation Centre and Saskatoon City Hospital**
 - Accountability Document (2005/2006)
 - Performance Management Accountability Indicators (all versions to date)

PROGRAM-SPECIFIC INDICATORS: ACUTE CARE

Lapses in service availability

Section: Program-Specific Indicators

Sub-Section: Acute Care

Category: Health System Performance

Type of Measure: Input

Status: Dropped (2005/2006)

[Originally planned to be Active for 2006/2007.]

Definition: Lapses in service availability: occurrences and duration of lack of coverage in one or more of the minimum core services for the acute care facilities in the specified Regional Health Authority (RHA). Each level of hospital classification (Community/Northern, District, Regional, Provincial) is assessed on a different (and relevant) group of services.

Template Content Last Changed: March 31, 2005

Indicator Name Reference List

- **Lapses in service availability (e.g. occurrences and duration of lack of coverage in one or more of the minimum (core) services for a specific facility/geographic area)**
 - Accountability Document (2003/2004 and 2004/2005)
- **Lapses in service availability**
 - Accountability Document (2005/2006)
 - Performance Management Accountability Indicators (all versions to date)

Retention rate: percentage of appropriate acute care inpatient separations provided within region of residence

Section: Program-Specific Indicators

Sub-Section: Acute Care

Category: Health System Performance

Type of Measure: Appropriateness

Status: Dropped (2005/2006)

[Originally planned to be Active for 2005/2006.]

Definition: Acute care inpatient separations that can be provided in the patient's region of residence expressed as a percentage of those that are actually provided in the patient's region of residence.

Template Content Last Changed: March 31, 2005

Indicator Name Reference List

- **Retention rate – percentage of local residents receiving acute care services in the region**
 - Accountability Document (2003/2004)
- **Acute care weighted separations & day surgery cases retained in the region**
 - Core Indicators for Progress & Results (2003/2004)
- **Retention rate – percentage of local residents receiving acute care services in the region in which they reside**
 - Accountability Document (2004/2005)
- **Retention rate: percentage of appropriate acute care inpatient separations provided within region of residence**
 - Accountability Document (2005/2006)
 - Performance Management Accountability Indicators (all versions to date)

Actual length of stay of acute inpatients compared to expected length of stay

Section: Program-Specific Indicators

Sub-Section: Acute Care

Category: Health System Performance

Type of Measure: Efficiency

Status: Dropped (2005/2006)

[Originally planned to be Active for 2005/2006.]

Performance Management Accountability Indicators

Definition: This indicator compares the total actual length of stay (ALOS) with the total expected length of stay (ELOS).

ELOS is derived from the Canadian Institute for Health Information's (CIHI's) Case Mix Group (CMG) methodology using calibration from a given year. ELOS is calculated on typical patients taking into account the reason for hospitalization, age, comorbidity, and complications. Typical cases exclude deaths, transfers, voluntary sign-outs, and cases where the actual length of stay is greater than the "trim point" established by CIHI.

A positive value indicates actual days stay was longer than expected while a negative value suggests the average actual stay was shorter than expected.

Template Content Last Changed: March 31, 2005

Indicator Name Reference List

- **Average length of stay of acute inpatients compared to expected length of stay**
 - Performance Management Accountability Indicators (February 16 and 18, 2005 versions)
- **Actual length of stay of acute inpatients compared to expected length of stay**
 - Accountability Document (2005/2006)
 - Performance Management Accountability Indicators (March 16, 2005 version onwards)

Case mix adjusted mortality ratio

Section: Program-Specific Indicators

Sub-Section: Acute Care

Category: Health System Performance

Type of Measure: Quality

Status: Dropped (2005/2006)

[This indicator was proposed during the 2004/2005 indicator development and review process as a replacement for the Health Status and Outcome indicators "Risk adjusted mortality rates" and "Standardized hospital mortality rates". It was planned to be Active for 2005/2006, and appeared only in the 2005/2006 Accountability Document.]

Definition: The in-hospital mortality rate for patients hospitalized in a specified regional health authority (RHA), taking into account the severity of illness and patient age.

Template Content Last Changed: March 31, 2005

Indicator Name Reference List

- **Case mix adjusted mortality ratio**
 - Accountability Document (2005/2006)
 - Performance Management Accountability Indicators (March 16, 2005 version onwards)

PROGRAM-SPECIFIC INDICATORS: MEDICAL/PHYSICIAN SERVICES – SPECIALISTS

Number of interruptions in Tier I coverage

Section: Program-Specific Indicators
Sub-Section: Medical/Physician Services – Specialists
Category: Health System Performance
Type of Measure: Input
Status: Dropped (2005/2006)
Definition: Not applicable.
Template Content Last Changed: Not applicable.

Indicator Name Reference List

- **Number of interruptions in Tier I coverage**
 - Accountability Document (2003/2004, 2004/2005, and 2005/2006)
 - Performance Management Accountability Indicators (all versions to date)

Implementation and maintenance of standardized workload measures and reporting systems

Section: Program-Specific Indicators
Sub-Section: Medical/Physician Services – Specialists
Category: Not applicable.
Type of Measure: Not applicable.
Status: Dropped (2005/2006)
[This indicator appeared in the 2005/2006 Accountability Document only.]
Definition: Not applicable.
Template Content Last Changed: Not applicable.

Indicator Name Reference List

- **Implementation and maintenance of standardized workload measures and reporting systems**
 - Accountability Document (2005/2006)
 - Performance Management Accountability Indicators (April 21, 2006 version onwards)

PROGRAM-SPECIFIC INDICATORS: INSTITUTIONAL SUPPORTIVE CARE

Average wait time between referral and assessment for institutional supportive care services

Section:	Program-Specific Indicators
Sub-Section:	Institutional Supportive Care
Category:	Health System Performance
Type of Measure:	Efficiency
Status:	Dropped (2005/2006)
Definition:	Average time in days from expression of desire for service by the client, or referral from another provider, to assessment for institutional supportive care services for a specified time period (e.g. fiscal year).

Template Content Last Changed: March 31, 2005

Indicator Name Reference List

- **Timely access to services, measured by (1) average length of time for assessment to occur after request for placement has been received**
 - Accountability Document (2003/2004)
- **Timely access to institutional supportive care services, measured by (1) average length of time for assessment to occur after request for placement has been received**
 - Accountability Document (2004/2005)
- **Average wait time between referral and assessment for institutional supportive care services**
 - Accountability Document (2005/2006)
 - Performance Management Accountability Indicators (all versions to date)

Case mix index for institutional supportive care residents on admission to institutional supportive care

Section:	Program-Specific Indicators
Sub-Section:	Institutional Supportive Care
Category:	Community and Health System Characteristics
Type of Measure:	Appropriateness
Status:	Dropped (2005/2006) <i>[Originally planned to be Active for 2005/2006.]</i>

Performance Management Accountability Indicators

Definition: Number of clients admitted to institutional supportive care services for a specified time period (e.g. fiscal year) by MDS Resource Utilization Group (RUG) category, expressed as a percentage of the total number of clients admitted to institutional supportive care services.

Template Content Last Changed: March 31, 2005

Indicator Name Reference List

- **Admission of primarily heavier care residents to long-term care, measured by (1) distribution of levels of care on admission**
 - Accountability Document (2003/2004)
- **Admission to institutional supportive care of primarily heavier care residents, defined as those whose needs can not otherwise be met in the community, measured by (1) distribution of levels of care on admission**
 - Accountability Document (2004/2005)
- **Distribution of level of care of institutional supportive care residents on admission to institutional supportive care**
 - Performance Management Accountability Indicators (February 16 and 18, 2005 versions)
- **Case mix index for institutional supportive care residents on admission to institutional supportive care**
 - Accountability Document (2005/2006)
 - Performance Management Accountability Indicators (March 16, 2005 version onwards)

PROGRAM-SPECIFIC INDICATORS: HOME-BASED SUPPORTIVE CARE

Distribution of level of care for supportive home care upon admission to institutional supportive care

Section: Program-Specific Indicators

Sub-Section: Home-Based Supportive Care

Category: Not applicable.

Type of Measure: Not applicable.

Status: Dropped (2004/2005)

Definition: Not applicable.

Template Content Last Changed: Not applicable.

Indicator Name Reference List

- **Distribution of level of care upon admission to long term care facilities**
 - Accountability Document (2003/2004)
- **Delivery of appropriate home based supportive services, within continuum of care, as measured by (1) distribution of level of care upon admission to long term care facilities**
 - Accountability Document (2004/2005)
- **Distribution of level of care for supportive home care upon admission to institutional supportive care**
 - Performance Management Accountability Indicators (all versions to date)

Number of supportive home care clients offered an institutional supportive care bed and then not accepted

Section: Program-Specific Indicators

Sub-Section: Home-Based Supportive Care

Category: Health System Performance

Type of Measure: Appropriateness

Status: Dropped (2004/2005)

Definition: The number of supportive home care clients who were offered an institutional supportive care bed and have chosen to remain living in the community, expressed as a percentage of all supportive home care clients that were offered a bed.

Template Content Last Changed: March 31, 2005

Indicator Name Reference List

- **Delivery of appropriate home based supportive services, within continuum of care, as measured by (3) number of Level 3 and 4 clients who choose to remain living in the community rather than accept placement (bed offered, not accepted by client)**
 - Accountability Document (2004/2005)
- **Number of level 3 and 4 supportive home care clients offered an institutional supportive care bed and then not accepted**
 - Performance Management Accountability Indicators (February 16 and 18, 2005 versions)
- **Number of supportive home care clients offered an institutional supportive care bed and then not accepted**
 - Performance Management Accountability Indicators (March 16, 2005 version onwards)

PROGRAM-SPECIFIC INDICATORS: POPULATION HEALTH SERVICES

Genital chlamydia rate per 100,000 population

Section: Program-Specific Indicators

Sub-Section: Population Health Services

Category: Health Status

Type of Measure: Outcome

Status: Dropped (2005/2006)

[This indicator was Active for 2003/2004 and 2004/2005 only. It was replaced in 2005/2006 with the Population Health Services indicator "Percentage of genital chlamydia cases with complete or required surveillance information in the electronic provincial surveillance system within established time frames".]

Definition: Genital chlamydia trachomatis cases resident in a health region meeting the national case definition and reported to the medical health officer of a health region in Saskatchewan expressed as a rate per 100,000 population. The definition requires laboratory confirmation of infection with or without symptoms.

Template Content Last Changed: March 31, 2005

Indicator Name Reference List

- **Incidence rate of chlamydia**
 - Accountability Document (2003/2004 and 2004/2005)
- **Chlamydia rates**
 - Core Indicators for Progress & Results (2003/2004)
- **Genital chlamydia rates**
 - Performance Management Accountability Indicators (February 16 and 18, 2005 versions)
- **Genital chlamydia rate per 100,000 population**
 - Accountability Document (2005/2006)
 - Performance Management Accountability Indicators (March 16, 2005 version onwards)

Population health promotion plan approved by RHA boards and submitted as part of health region operational plans (fall 2004) and progress report March 31, 2005

Section: Program-Specific Indicators

Sub-Section: Population Health Services

Category: Health System Performance

Type of Measure: Input

Status: Dropped (2005/2006)

[This indicator was Active for 2004/2005 only, and included as a Quarterly Performance Management Report (“Dashboard”) measure for 2004/2005 only. It did not, however, appear in the 2004/2005 Accountability Document.]

Definition: A yes/no measure assessing whether Regional Health Authorities (RHAs) submitted board-approved Population Health Promotion Plans with their Operational Plans (December 2004), and reported on progress at March 31, 2005.

Template Content Last Changed: March 31, 2005

Indicator Name Reference List

- **Population health promotion plan approved by RHA boards and submitted as part of health region operational plans (fall 2004) and progress report March 31, 2005**
 - Performance Management Accountability Indicators (all versions to date)
 - Performance Management Dashboard (2004/2005)

PROGRAM-SPECIFIC INDICATORS: HOME-BASED ACUTE AND PALLIATIVE CARE

Average number of non-acute days in hospital for acute home care clients

Section: Program-Specific Indicators

Sub-Section: Home-Based Acute and Palliative Care

Category: Health System Performance

Type of Measure: Efficiency

Status: Dropped (2004/2005)

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Definition: Average number of non-acute (alternate level of care) days in hospital for those clients receiving acute home care services upon discharge from hospital.

Template Content Last Changed: March 31, 2005

Indicator Name Reference List

- **Timely discharge from acute care (hospital) to home care, measured by (1) average number of non-acute days in hospital for clients**
 - Accountability Document (2003/2004)
- **Timely discharge from acute care (hospital) to home care, measured by average number of non-acute days in hospital for clients**
 - Accountability Document (2004/2005)
- **Average number of non-acute days in hospital for acute home care clients**
 - Performance Management Accountability Indicators (all versions to date)

PROGRAM-SPECIFIC INDICATORS: PRIMARY HEALTH SERVICES

Primary Health Care planning / steering committee has public, intersectoral and front line staff representation

Section: Program-Specific Indicators

Sub-Section: Primary Health Services

Category: Health System Performance

Type of Measure: Structure / Process

Status: Dropped (2004/2005)

Definition: Not applicable.

Template Content Last Changed: Not applicable.

Indicator Name Reference List

- **The number of planning/steering committees that have public, intersectoral and front line staff representation**
 - Accountability Document (2004/2005)
- **Primary Health Care planning / steering committee has public, intersectoral and front line staff representation**
 - Performance Management Accountability Indicators (all versions to date)

PROGRAM-SPECIFIC INDICATORS: EMERGENCY RESPONSE SERVICES

Percentage of ambulance calls responded to where at least one of the emergency medical service providers has at least basic-EMT level training

Section: Program-Specific Indicators

Sub-Section: Emergency Response Services

Category: Health System Performance

Type of Measure: Appropriateness

Status: Dropped (2005/2006)

[This indicator was Active for 2004/2005 only.]

Definition: The percentage of ambulance calls responded to where at least one of the emergency medical service providers has at least basic Emergency Medical Technician (EMT) level training.

Template Content Last Changed: March 31, 2005

Indicator Name Reference List

- **Distribution of calls by the highest level of training of personnel on each call (i.e. EMR, EMT, EMT-A, Paramedic)**
 - Accountability Document (2003/2004 and 2004/2005)
- **Distribution of ambulance calls by highest level of training**
 - Performance Management Accountability Indicators (February 16 and 18, 2005 versions)
- **Percentage of ambulance calls where an Emergency Medical Responder (EMR) is the attendant with the highest level of training**
 - Accountability Document (2005/2006)
 - Performance Management Accountability Indicators (March 16, 2005 version)
- **Percentage of ambulance calls responded to where at least one of the emergency medical service providers has at least basic-EMT level training**
 - Performance Management Accountability Indicators (March 31, 2005 version onwards)

Number and cost of ambulance service waiting time hours billed, and average waiting time per call for ambulance calls involving waiting time

Section: Program-Specific Indicators

Sub-Section: Emergency Response Services

Category: Health System Performance

Type of Measure: Appropriateness / Efficiency

Status: Dropped (2004/2005) [*the indicator, however, appeared in the 2005/2006 Accountability Document*]
[These measures are not relevant at RHA level.]

Definition: The number and cost of waiting time hours billed by ambulance services, and the average number of waiting time minutes per call for a specified time period (e.g. fiscal year).

Template Content Last Changed: March 16, 2005

Indicator Name Reference List

- **Number and cost of waiting time hours billed by each ambulance service in the region**
 - Accountability Document (2003/2004 and 2004/2005)
- **Number and cost of ambulance service waiting time hours billed, and average waiting time per call**
 - Performance Management Accountability Indicators (February 16 and 18, 2005 versions)
- **Number and cost of ambulance service waiting time hours billed, and average waiting time per call for ambulance calls involving waiting time**
 - Accountability Document (2005/2006)
 - Performance Management Accountability Indicators (March 16, 2005 version onwards)

PROGRAM-SPECIFIC INDICATORS: MEDICAL/PHYSICIAN SERVICES – OTHER

Implementation and maintenance of standardized workload measures and reporting systems

Section: Program-Specific Indicators
Sub-Section: Medical/Physician Services – Other
Category: Not applicable.
Type of Measure: Not applicable.
Status: Dropped (2005/2006)
Definition: Not applicable.
Template Content Last Changed: Not applicable.

Indicator Name Reference List

- **Implementation and maintenance of standardized workload measures and reporting systems**
 - Accountability Document (2003/2004, 2004/2005, and 2005/2006)
 - Performance Management Accountability Indicators (all versions to date)

RHA consistency with provincially established compensation rates and practices

Section: Program-Specific Indicators
Sub-Section: Medical/Physician Services – Other
Category: Not applicable.
Type of Measure: Not applicable.
Status: Dropped (2004/2005)
Definition: Not applicable.
Template Content Last Changed: Not applicable.

Indicator Name Reference List

- **RHA consistency with provincially established compensation rates and practices**
 - Accountability Document (2003/2004 and 2004/2005)
 - Performance Management Accountability Indicators (all versions to date)

HEALTH STATUS AND OUTCOME INDICATORS

Risk adjusted mortality rates

Section: Health Status and Outcome Indicators

Sub-Section: Not applicable.

Category: Health Status

Type of Measure: Outcome

Status: Dropped (2004/2005)

[This indicator was replaced with the Acute Care program-specific indicator "Case mix adjusted mortality ratio".]

Definition: Not applicable.

Template Content Last Changed: Not applicable.

Indicator Name Reference List

- **Risk adjusted mortality rates**
 - Accountability Document (2003/2004 and 2004/2005)
 - Performance Management Accountability Indicators (all versions to date)

Standardized hospital mortality rates

Section: Health Status and Outcome Indicators

Sub-Section: Not applicable.

Category: Health Status

Type of Measure: Outcome

Status: Dropped (2004/2005)

[This indicator was replaced with the Acute Care program-specific indicator "Case mix adjusted mortality ratio".]

Definition: Not applicable.

Template Content Last Changed: Not applicable.

Indicator Name Reference List

- **Standardized hospital mortality rates**
 - Accountability Document (2003/2004 and 2004/2005)

- Performance Management Accountability Indicators (all versions to date)

APPENDIX C – DEFINITIONS FOR HHR INDICATORS

Key terms that require defining for consistent reporting:

Term	Proposed Definition(s)
Aboriginal	<p>The descendants of the original inhabitants of North America. The Canadian Constitution recognizes three groups of Aboriginal people – Indians, Métis, and Inuit.</p> <p>Note: The term “First Nations” is commonly used to replace the word “Indian”, however no legal definition of the term exists. Among its uses, the term “First Nations peoples” refers to the Indian people in Canada, both Status and Non-Status. Many Indian people have also adopted the term “First Nation” to replace the word “band” in the name of their community.</p> <p>Source: Indian and Northern Affairs Canada (INAC). March 2000. <u>Treaties with Aboriginal People in Canada</u>. (www.inac.gc.ca/pr/info/is30_e.pdf)</p>
Casual	<p>In the SUN contract, casual employees (OTFT-CAS) are those who work on a call-in basis and who only appear on the schedule on a regular and continuing basis in the case of: replacement for illness and WCB of less than 120 days; vacation replacement; stat holiday replacement; replacement for leaves of absence of less than 120 days; or temporary excess workload.</p>
Full time	<p>Calculated based on a number of hours per year, specified in collective agreements.</p> <p>Statistics Canada defines full time employment as persons who usually work 30 hours or more a week at their main or only job, excluding overtime (collective agreements define full-time hours ranging from 35-40 hours a week).</p>
Full time equivalent	<p>The Full-time Equivalent (FTE) methodology was developed to:</p> <ul style="list-style-type: none"> • provide a consistent basis for comparing supply across and within provinces/territories; • provide a consistent basis for measuring changes through time in supply; and • recognizes workload differences among individual providers. <p>Source: Canadian Institute for Health Information (CIHI). “Full-time Equivalent Physicians Report Canada, 1999/2000 and 2000/2001”.</p> <p>To compute FTE of part-time equivalents, take the number of hours worked by a part-time employee and divide it by the number of hours considered by collective agreements to be a full-time work week. For example, if 30 hours is worked and 40 hours is full time, then the FTE is 30/40 = .75.</p> <p>Full-time equivalent employment is a computed statistic representing the number of full-time employees that could have been employed if</p>

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Term	Proposed Definition(s)
	<p>the reported number of hours worked by part-time employees had been worked by full-time employees. It is calculated by dividing the "part-time hours paid" by the standard number of hours for full-time employees and then adding the resulting quotient to the number of full-time employees.</p> <p>Source: US Census Bureau. 1997.</p>
Overtime	<p>SUN defines overtime as time worked in excess of the normal daily or bi-weekly hours.</p> <p>The Statistics Canada Labour Force survey uses a broad definition of overtime – any hours worked in excess of the usual, standard, or scheduled hours of work – it includes all extra hours of work, whether the work was done at premium or regular overtime rate, or without pay.</p>
Part time	<p>The SUN collective agreement defines three categories of OTFT (other than full time) employees:</p> <ol style="list-style-type: none"> 1. OTFT-RPT regular part time = employees who work on a regular and continuing scheduled basis; 2. OTFT-JS job sharing; and, 3. OTFT-CAS casual (see below).
Permanent position	Positions that do not have a defined end date.
Temporary position	Term appointments have a defined start and end date. Term work over a certain duration must be posted within the seniority unit (e.g. SUN 120 days; SGEU six months).
Work days	<p>An 8-hour day is assumed.</p> <p>In the SUN* collective agreement the "normal hours of work is 8 hours", there are also eight optional scheduling systems, one of which is 12 hour shifts.</p> <p>In SGEU a work day is 8-hours; there are options for alternate arrangements.</p>

Examined the SUN agreement definitions; other collective agreements to be reviewed.

APPENDIX D – CANADIAN COMMUNITY HEALTH SURVEY (CCHS)

The Canadian Community Health Survey (CCHS) is a health survey conducted in two-year cycles by Statistics Canada. Each cycle consists of two distinct surveys:

- Cycle x.1 – a large sample survey (130,000 sample size) in the first year designed to provide estimates of health determinants, health status and health system utilization at the sub-provincial level (health regions, or combinations of health regions); and,
- Cycle x.2 – a smaller in-depth survey (30,000 sample size) in the second year designed to provide estimates on a particular topic at the provincial and national levels.

The sample size for Saskatchewan in 2003 (Cycle 2.1) was 7,057 respondents.

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The collection periods for each survey are as follows:

- Cycle 1.1 – September 2000 to November 2001 (the 2001 Health Services Access Survey (HSAS) was a supplement to Cycle 1.1 conducted from November to December 2001);
- Cycle 1.2 (Mental Health and Well Being) – 2002;
- Cycle 2.1 – 2003 (also included the 2003 HSAS);
- Cycle 2.2 (Nutrition) – 2004; and,
- Cycle 3.1 – January to December 2005 (HSAS is fully integrated into Cycle 3.1).

Data is usually available within one year of survey completion.

The CCHS includes residents age 12 years and over living in private households. Certain populations are excluded from the sample, including individuals who are institutionalized, incarcerated or homeless, individuals living on First Nations Reserves and Crown Lands, full-time members of the Canadian Armed Forces, and residents of certain remote regions. The population surveyed may differ for the Cycle x.2 surveys.

Some populations are systematically under-represented in surveys. For example, northern residents may not be surveyed because of fewer telephones in the North or the inability of interviewers to access rural and remote populations. There are also serious data gaps in some populations, for example, First Nations and Inuit.

Three types of CCHS data files are created by Statistics Canada:

- The “Master File” is confidential and is used only by Statistics Canada (and some researchers granted special permission). It contains all respondents, and all of the information for each respondent.
- The “Share File” contains the same information as the Master File (with all identifiable information removed) for those respondents who indicated that their information could be shared. Provincial / territorial ministries of health and their partners have access to this file.
- The “Public Use Microdata File” or “PUMF” is in the public domain. It contains all respondents, but the information has been aggregated, and in some cases suppressed, in order to prevent individual respondents from being identified.

Results are also disseminated to jurisdictions through periodic reports on module content as they are made available.

In order for survey data estimates to be representative of the population, and not just the sample itself, a survey weight is assigned to each person included in the final sample (i.e. those people who answered the survey). This weight corresponds to the number of people in the entire population who are represented by the respondent.

Caution must be exercised when comparing CCHS point estimates (between different age groups, between males and females, between different regions, between cycle 2.1 and cycle 1.1, etc.). Although non-overlapping 95% confidence intervals for two point estimates will indicate that the estimates are significantly different, no conclusion can be drawn if they do overlap. Therefore, statistical hypothesis testing (a Z-test) must be performed for any comparison.

Please refer to the Statistics Canada website (www.statcan.ca/english/concepts/hs/index.htm) and the documents “Canadian Community Health Survey (CCHS) Cycle 2.1 (2003): Public Use Microdata File Documentation” (Statistics Canada, 2005) and “The Health Analyst’s Toolkit” (Health System Intelligence Project (HSIP)) for detailed information on the CCHS, and on using and interpreting CCHS data.

References

Health System Intelligence Project (HSIP). January 2006. “The Health Analyst’s Toolkit”. Ontario Ministry of Health and Long-Term Care.
(www.health.gov.on.ca/transformation/providers/information/resources/analyst_toolkit.pdf)

Statistics Canada. March 8, 2005. "Population Health Surveys" section on website.
(www.statcan.ca/english/concepts/hs/index.htm)

Statistics Canada, Health Statistics Division. 2005. "Canadian Community Health Survey (CCHS) Cycle 2.1 (2003): Public Use Microdata File Documentation". Ottawa, Ontario: Minister of Industry.
(www.statcan.ca/english/sdds/document/3226_D5_T9_V2_E.pdf)

APPENDIX E – DETAILED DATA FLOW: ACUTE CARE HOSPITAL DATA

Saskatchewan Health's year-end hospital file for the given fiscal year is mainly data submitted to the Canadian Institute for Health Information's (CIHI's) Discharge Abstract Database (DAD) (including about 67% of the records for Saskatchewan residents hospitalized in out of the province facilities), but also includes merged information from Saskatchewan Health's reciprocal billing system to fill in the rest of the out of province hospitalizations.

All Saskatchewan acute care facilities code and abstract inpatient and day surgery separations (based on charts compiled by physicians) and submit the records directly to CIHI's DAD. CIHI conducts edit checks and adds calculated fields such as the Case Mix Group (CMG) and Resource Intensity Weight (RIW).

Saskatchewan Health receives a monthly cut of the data from CIHI and a final cut of the data once CIHI's year-end processes have been completed. Further edit checks and corrections are performed by the Health Information Solutions Centre (HISC), Saskatchewan Health before the final year-end file is produced.

Data files with the DAD data for Saskatchewan residents hospitalized in out-of-province facilities are also supplied by CIHI with the consent of the other provinces.

Out-of-province facilities submit reciprocal billing claims for Saskatchewan residents to Medical Services Branch, Saskatchewan Health. As the main purpose of the reciprocal billing system is to process and pay claims, the records from this source do not contain all of the fields offered in the DAD. The diagnostic and intervention information is not necessarily as complete as that of the DAD.

For 2002/2003 and 2003/2004, records for hospitalization of Saskatchewan residents in Flin Flon Hospital were obtained from Manitoba Health in an Excel spreadsheet. These records do not contain the full information of the DAD because only Winnipeg hospitals were submitting data to the DAD in this fiscal year. All Manitoba hospitals began submitting data to the DAD in 2004/2005.

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